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November 21, 2014

Via Electronic Mail and U.S. Mail

Mr. John Osolin
Remedial Project Manager
United States Environmental Protection Agency, Region 2
290 Broadway, 19th Floor
New York, NY 10007-1866

RE: Evor Phillips Leasing Company Superfund Site – Injection Event 1 – Post Injection Monitoring Report

Dear Mr. Osolin:

On behalf of the Evor Phillips Leasing Company Settling Defendants Group (EPLC), enclosed please find O'Brien & Gere Engineers, Inc.'s (OBG) Injection Event 1 – Post Injection Monitoring Report for the Evor Phillips Superfund Site located in Old Bridge, New Jersey. The report provides the sampling findings following the first In-Situ Chemical Oxidation (ISCO) event for the on-Site groundwater OU-3. The Report also provides recommendations for the second ISCO event which is currently scheduled to start in March 2015.

The EPLC would welcome the opportunity to meet with the USEPA to review the Event 1 findings and recommendations. In this regard, I will contact you next week to confirm availability for a technical meeting. In the interim, please do not hesitate to contact me with any questions.

Sincerely,

de maximis, inc.



Chris R. Young
Project Coordinator

Attachment

CC: Lynn Vogel, NJDEP
EPLC Superfund Site Settling Defendants

FILE: 3210C.03/EPA Cover Ltr - Inject Event 1 - Post Inject Monitor Rpt 11-19-14.docx

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November 21, 2014

Mr. John Osolin

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Emergency and Remedial Response Division
United States Environmental Protection Agency – Region 2
290 Broadway
New York, NY 10007-1866

Ms. Lynn Vogel

Case Manager
New Jersey Department of Environmental Protection
401 E. State Street
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Trenton, NJ 08625-0420

RE: Remedial Action for Operable Unit 3 (OU3) – Site Groundwater
Injection Event #1 / Post-Injection Monitoring Report
Evor Phillips Leasing Company Superfund Site
Old Bridge Township, Middlesex County, New Jersey (**Program Interest #G000004877, EPA
ID #NJD980654222**)

FILE: 19726 / 51308

Dear Mr. Osolin and Ms. Vogel:

On behalf of the Evor Phillips Leasing Company Superfund Site Settling Defendants (Group), O'Brien & Gere has prepared this in-situ chemical oxidation (ISCO) Injection Event #1 / Post-Injection Monitoring Report for the Remedial Action for Operable Unit 3 (OU3) – Site Groundwater at the Evor Phillips Leasing Company (EPLC) Superfund Site (Site) in Old Bridge, New Jersey. A Site Location Map is provided as [Figure 1](#), and a Site Plan with well locations is provided as [Figure 2](#).

The first ISCO injection event was completed in February/March 2014, followed by four groundwater performance monitoring events in accordance with the EPA-approved Remedial Design Report (RDR) / Remedial Action Work Plan (RAWP). Injections were completed for the two treatment areas (Treatment Area 1 and Treatment Area 2) as identified in the RDR/RAWP. A layout of the ISCO injection point (IP) network for the two treatment areas is included as [Figure 3](#). The four groundwater performance monitoring events were completed as follows:

- 1st Post-Round 1 Monitoring Event – May 12-14, 2014 (approximately 6 weeks following injections)
- 2nd Post-Round 1 Monitoring Event – June 30-July 1, 2014 (approximately 3 months following injections)
- 3rd Post-Round 1 Monitoring Event – August 7-8, 2014 (approximately 4 months following injections)
- 4th Post-Round 1 Monitoring Event – September 10-11, 2014 (approximately 5 months following injections)

The following sections of this letter report present the details of the first round of ISCO injections, post-injection groundwater sampling activities/results, and recommendations for the second round of ISCO injections.

TREATMENT AREA 1 ISCO INJECTIONS

INJECTION VERIFICATION TESTING (TEST 1)

Prior to the commencement of full-scale injections, injection verification testing was performed to evaluate oxidant distribution during injections within a selected test area, relative to the targeted 10-foot radius-of-influence (ROI) of the oxidant within Treatment Area 1 (5-foot vertical injection interval), using the injection approach as described in the RDR/RAWP. The injection testing was completed around monitoring well ISCO-MW-3, which was selected based on its central location within Treatment Area 1. Injections were completed at the four surrounding IP locations (1-18, 1-19, 1-32, and 1-33 – refer to [Figure 3](#)). In addition, four (4) temporary 1-inch diameter PVC piezometers (PZ-1, PZ-2, PZ-3, and PZ-4) were installed at varying radial distances from the IP locations to provide additional monitoring points for the evaluation of oxidant distribution. The PZs were installed and screened at depths consistent with the surrounding IPs. Details of the IP locations and PZ locations in the test area are included in [Attachment 1](#).

The base activated sodium persulfate (BASP) injections for the four IPs (1-18, 1-19, 1-32, 1-33) was completed on February 27, 2014. Oxidant solution was injected simultaneously at the four injection points, at a dosing volume increment of approximately 263 gallons for each point. A second injection dose increment of the same volume was then performed to achieve the proposed total design volume of 525 gallons of oxidant/base solution (approximately 7.5% persulfate concentration) per IP. Fluid pumping rates were sustained at 3-5 gallons per minute (gpm) with very low back-pressure (0-2 pounds per square inch [psi]), supporting effective solution delivery to the subsurface. All monitoring points in the vicinity (the four PZs and ISCO-MW-3) exhibited a consistent hydraulic response (i.e., water table increase) to the fluid injections. Injections (both doses) were completed in approximately 2-3 hours. Initial monitoring data (i.e., within the first several hours post-injection) did not exhibit elevated pH/persulfate readings in the groundwater samples at the PZs and ISCO-MW-3, and therefore additional BASP/caustic solution was injected at each of the four IPs in two additional dosing volume increments of approximately 263 gallons each, to increase the pore volume displacement in the subsurface and expedite pH/persulfate responses in monitoring points. The additional injections were completed consistent with the initial injections. Groundwater monitoring of the PZs and ISCO-MW-3 for field parameters (i.e., pH, conductivity, oxidation reduction potential (ORP), total dissolved solids (TDS), dissolved oxygen (DO), temperature) and persulfate was conducted at various points during the injection verification testing work, and following completion of the injections.

Groundwater grab samples were collected using dedicated bailers in the PZs and ISCO-MW-3 and were evaluated for indications of oxidant influence. Elevated pH (e.g., 10.5 or greater) and persulfate readings were identified first at PZ-4 during the injection work after approximately 760 gallons had been added at each of the IPs. Thereafter, elevated pH/persulfate readings were identified at PZ-3 (approximately 15 hours after completion of injections), PZ-1 (approximately 24 hours after completion of injections), PZ-2 (approximately 40 hours following completion of injections), and ISCO-MW-3 (approximately 88 hours following completion of injections). [Attachment 1](#) provides the monitoring results for the Treatment Area 1 verification testing.

Based on the verification testing results, the design ROI (10 feet) was achieved during the testing. As discussed above, elevated pH and persulfate conditions were identified in the injection test area following the completion of the 788-gallon injection volume at each of the IPs during the testing. For the full-scale injections, the design reagent volume/concentration for each IP was adjusted to approximately 800 gallons of 5% (50 g/L) persulfate from the original design volume (525 gallons of 7.5%, or 75 g/L, persulfate), maintaining the design basis of 2 g persulfate/kg soil pursuant to the design concentration identified in the RDR/RAWP.

FULL-SCALE INJECTIONS

The full-scale injections were conducted in Treatment Area 1 following the verification testing described above and were completed on March 14, 2014. Based on the results of the verification testing, reagent volumes of approximately 800 gallons of 5% (50 g/L) persulfate and 3 lbs 25% sodium hydroxide (NaOH)/lb of sodium persulfate were injected into each IP at the targeted 5-foot interval (refer to [Figure 3](#) for specific injection

depths at each IP). Treatment area 1 consisted of 52 IPs, including the four IPs from the verification testing, consistent with the RDR/RAWP.

IPs were installed using direct-push methods by Environmental Probing Investigations, Inc., an NJDEP licensed driller. A stainless steel temporary well screen sealed within a steel sheath was advanced to the appropriate injection interval. The outer steel sheath was retracted, exposing the inner well screen. Base Activated Sodium Persulfate (BASP) was pumped from the surface, through the drilling rods and into the subsurface. Upon completion of each IP, the tooling was removed and decontaminated. Each borehole was sealed with bentonite.

Injections were generally completed from the northeast of the treatment area to the southwest, alternating between points to mitigate the potential for groundwater / solution surfacing (“daylighting”). BASP pumping rates were sustained at 5-7 gpm with low back-pressure (0-25 psi), and no surfacing of BASP was observed throughout the injections in Treatment Area 1, indicating effective solution delivery to the subsurface. Injections for each IP required approximately 2-3 hours to complete. [Attachment 2](#) provides the injection schedule/volumes for each IP in Treatment Area 1.

At various times during the injections, monitoring wells ISCO-MW-2, ISCO-MW-3, ISCO-MW-7, ISCO-MW-8, ISCO-MW-9, IW1-BT-2, IW1-DR-1 (upgradient), and ISCO-MW-4 (downgradient) in Treatment Area 1 were monitored for field parameters (i.e., pH, conductivity, etc.) and persulfate. [Attachment 2](#) provides the process monitoring results for these wells during and following the Treatment Area 1 injections, including the pH and persulfate trends.

Elevated pH and persulfate readings were exhibited in the monitoring wells within Treatment Area 1 during and/or following injections. The elevated pH/persulfate readings were less pronounced in ISCO-MW-9 and IW1-BT-2, likely due to the locations of these wells near the upgradient perimeter. Regardless, both the injection verification testing and groundwater process monitoring results for Treatment Area 1 indicate that the oxidant was effectively delivered. No elevated pH and persulfate readings were observed in the upgradient and downgradient wells (IW1-DR-1 and ISCO-MW-4, respectively), indicating that the injected oxidant remained concentrated within the Treatment Area.

TREATMENT AREA 2 ISCO INJECTIONS

INJECTION VERIFICATION TESTING (TEST 1)

Injection verification testing was performed within Treatment Area 2 (15-foot vertical injection interval) to evaluate/demonstrate attainment of the 10-foot ROI of the oxidant. The test was completed around ISCO-MW-5 and was selected based on its central location within Treatment Area 2. Injections were completed at the four surrounding IP locations (2-14, 2-15, 2-24, and 2-25). Four 1-inch diameter PVC temporary PZs (PZ-5, PZ-6, PZ-7, and PZ-8) were installed at varying radial distances from the IP locations to provide additional monitoring points. Details of the IP locations and PZ locations in the test area are included in [Attachment 3](#).

The BASP injections for the four IPs (2-14, 2-15, 2-24, and 2-25) commenced on March 7, 2014. For this testing event, oxidant was injected into the middle 5-foot/intermediate vertical interval portion of the 15-foot full-scale treatment interval within each IP in order to align with the screen interval at ISCO-MW-5. The PZs were screened across an 8-foot vertical interval to capture the varying injection depths at the four IPs. The injections were performed similar to the full-scale injections in Treatment Area 1 as follows:

- Reagent solution was injected simultaneously at the four injection points
- Total volume of 800 gallons (approximately 5%, or 50 g/L, persulfate) per IP at the intermediate interval
- Fluid pumping rates were sustained at 5-7 gpm
- Low back-pressures (0-15 psi) were measured
- All monitoring points in the vicinity exhibited a consistent hydraulic response (i.e., water table increase) to the fluid injections

- The injections were completed in approximately 2-3 hours

Initial process monitoring data over the course of approximately three days following the test injections did not indicate influence from the BASP (e.g., pH/persulfate increase at ISCO-MW-5 or the PZs). Additional PZ wells, PZ-9 and PZ-10, were installed at approximately 5 feet from IP 2-15 to confirm that a smaller ROI was achieved. However, monitoring results in these wells also did not initially exhibit elevated pH or persulfate conditions.

Injections were completed at the remaining intervals in these IP points (5-foot vertical intervals above and below the initial injected interval) as described above to more closely represent the full-scale injection approach to be used in Treatment Area 2. However, monitoring results in the surrounding PZ wells and ISCO-MW-5 did not initially indicate oxidant influence following the injections in these intervals (PZ-9 and PZ-10 did subsequently show oxidant influence as described below). [Attachment 3](#) provides the monitoring results for the Treatment Area 2 first verification test (using revised grab process sampling techniques). Based on the inconclusive monitoring results from the first injection test, a second injection test was conducted within Treatment Area 2.

INJECTION VERIFICATION TESTING (TEST 2)

A second verification testing event was performed to further evaluate the ability to attain a 10-foot ROI of the oxidant within Treatment Area 2. Due to the results in the first injection test for Treatment Area 2, the second test was set up to more closely represent the full-scale injection approach based on a sequencing of injections (i.e., the bottom 5 foot/deep interval was injected, followed by the middle 5 foot/intermediate interval, and finally the top 5 foot/shallow interval). The second test area was selected based on the location of monitoring well, ISCO-MW-1, within the central portion of Treatment Area 2. Injections were completed in the four IPs surrounding ISCO-MW-1 (2-1, 2-2, 2-11, and 2-37). Five 1-inch diameter PVC temporary PZs (PZ-11, PZ-12, PZ-13, PZ-14, and PZ-15) were installed at varying radial distances from the IP locations to provide additional process monitoring data. Details of the IP locations and PZ locations are included in [Attachment 4](#).

The BASP injections for the four IPs (2-1, 2-2, 2-11, 2-37) commenced on March 12, 2014. Oxidant was injected across the entire 15-foot vertical injection interval, from the deep interval to the shallow interval. The PZs were screened across a 10-foot interval to cover a majority of the 15-foot interval. The injections in each 5-foot interval were performed similar to the first verification test in Treatment Area 2 as follows:

- Reagent solution was injected simultaneously at the four injection points, starting with the deep interval
- Total volume of 800 gallons (approximately 5%, or 50 g/L, persulfate) per 5-foot interval in each IP (or 2,400 gallons per IP)
- Fluid pumping rates were sustained at 2-8 gpm
- Low/moderate back-pressures (0-35 psi) were measured
- All monitoring points in the vicinity exhibited a consistent hydraulic response (i.e., water table increase) to the fluid injections.
- The injections in each 5-foot interval were completed in approximately 2-5 hours.

During the second test in Treatment Area 2, field personnel reported difficulty with lowering the small-diameter (i.e., ½-inch) bailers used for process monitoring grab samples collection from the PZs and ISCO-MW-1 to the desired interval, as the bailers appeared to be stopping at the water table interface (located above the screened intervals in the Treatment Area 2 wells) due to their small size/light weight. Therefore, the process monitoring grab sampling technique was adjusted to incorporate the use of weighted bailers and/or a peristaltic pump with intake tubing placed at the appropriate screened interval in each PZ and ISCO-MW-1. The use of these methods resulted in enhanced identification of oxidant distribution in the process monitoring points, with elevated pH and persulfate readings identified in the PZs and ISCO-MW-1. The weighted bailer and/or peristaltic pump method was used to monitor conditions throughout the remainder of the injections. In addition, the PZs used to monitor groundwater conditions during the first verification test in Treatment Area 2 (PZ7-PZ10) were re-sampled using this method. Subsequent sampling of PZ9 and PZ10 in the Area 2 (Test 1) location exhibited elevated pH and persulfate readings using the modified sampling method.

Elevated pH (e.g., 10.5 or greater) and persulfate readings for the second test were first identified in ISCO-MW-1, which was located approximately 2 feet from the IP location 2-11, approximately 50 minutes after the intermediate interval injections started. Elevated pH and persulfate readings were also identified in PZ-11, PZ-12, and PZ-13 (located at distances up to 10 feet from the IPs) following completion of injections in the deep/intermediate intervals. PZ-14 and PZ-15 measurements indicated little oxidant influence, and the reason for these findings is unclear. [Attachment 4](#) provides the monitoring results for the Treatment Area 2 second verification test.

Based on the results for the second verification test in Treatment Area 2, the targeted 10-foot ROI was demonstrated. Full-scale injections were initiated for the IPs located in the vicinity of the second test area and westward from there (i.e., IPs 2-3, 2-12, 2-22, and proceeding west). A third verification testing event was initiated to demonstrate ROI to the east of the first verification test in Treatment Area 2.

INJECTION VERIFICATION TESTING (TEST 3)

A third verification testing event was performed to demonstrate attainment of the 10-foot ROI of the oxidant within Treatment Area 2, in an area to the east of the first verification test. The test was completed similar to the second verification test (i.e., 15-foot injection interval). Injections were completed at IPs 2-7, 2-8, 2-16, and 2-17 as shown in [Attachment 5](#). Five PZs (PZ-16, PZ-17, PZ-18, PZ-19, and PZ-20) were installed at varying radial distances from the IP locations to provide monitoring data. Details of the IP and PZ locations are included in [Attachment 5](#).

The BASP injections for the four IPs (2-7, 2-8, 2-16, 2-17) commenced on March 19, 2014. Oxidant was injected across the entire 15-foot injection interval, from the deep interval to the shallow interval. The PZs were screened across a 10-foot interval to cover a majority of the 15-foot injection interval. The injections in each 5-foot interval were performed similar to the first and second verification tests in Treatment Area 2 as follows:

- Reagent solution was injected simultaneously at the four injection points, starting with the deep interval
- Total volume of 800 gallons (approximately 5%, or 50 g/L, persulfate) per 5-foot interval in each IP (or 2,400 gallons per IP)
- Fluid pumping rates were sustained at 5-7 gpm
- Low/moderate back-pressures (0-50 psi) were measured
- All monitoring points in the vicinity exhibited a consistent hydraulic response (i.e., water table increase) to the fluid injections.
- The injections in each 5-foot interval were completed in approximately 2-3 hours.

Elevated pH and persulfate readings were first identified in PZ-16 (approximately 5 feet from the IP location 2-8) approximately 3 hours after the injections began. The remaining PZs, PZ-17, PZ-18, PZ-19, and PZ-20, exhibited elevated pH and persulfate approximately 24 hours after the injections began. [Attachment 5](#) provides the monitoring results for the Treatment Area 2 third verification test.

Based on the verification testing results, the targeted ROI of 10 feet was achieved during the testing, and full-scale injections were initiated for the remainder of Treatment Area 2 (i.e., IPs 2-4, 2-13, 2-23 and eastward).

FULL-SCALE INJECTIONS

The full-scale injections were conducted in Treatment Area 2 following the verification testing events as described above and were completed on March 31, 2014. As stated above, reagent volumes of approximately 800 gallons of 5% (50 g/L) persulfate and 3 lbs 25% sodium hydroxide (NaOH)/lb of sodium were injected into each IP at the targeted 5-foot interval (refer to [Figure 3](#) for specific injection depths at each IP). 42 IPs with a total of 126 5-foot intervals were completed within Treatment Area 2, including the 12 IPs from the verification testing, consistent with the RDR/RAWP.

IPs were installed using direct-push methods by an NJDEP licensed driller. A stainless steel temporary well screen sealed within a steel sheath was advanced to the appropriate injection interval (bottom 5-foot interval

initially). The outer steel sheath was retracted, exposing the inner well screen. BASP was pumped from the surface, through the drilling rods and into the subsurface. The same process was repeated for other intervals. Upon completion of each IP (three injection intervals), the tooling was removed and decontaminated. Each borehole was sealed with bentonite.

Based on the results of the second and third verification tests, injections were completed in the west portion of the treatment area, followed by the east portion of the treatment area. BASP pumping rates were sustained at 2-8 gpm with low/moderate back-pressure (0-50 psi), indicating effective solution delivery to the subsurface. During injections at IP 2-8, surfacing occurred in PZ-16 due to its close proximity to IP 2-8. Remaining injections at IP 2-8 were temporarily stopped to abandon PZ16, and were resumed the following day. Aside from this occurrence, no surfacing was observed throughout injections in Treatment Area 2. The injections at each interval in the IPs were completed in approximately 2-5 hours. [Attachment 6](#) provides the injection schedule/volumes for each IP in Treatment Area 2.

Monitoring wells ISCO-MW-1, ISCO-MW-5, ISCO-MW-6, PZ-1S, and MW-10S (downgradient) in Treatment Area 2 were sampled for field parameters, pH, and persulfate regularly throughout the ISCO injections. [Attachment 6](#) provides the process monitoring results for these wells during and following the Treatment Area 2 injections, including the pH and persulfate trends. The monitoring wells within Treatment Area 2 generally exhibited elevated pH/persulfate readings indicating good oxidant distribution throughout the treatment area, with the exception of ISCO-MW-5 which exhibited limited oxidant influence. The reason for the ISCO-MW-5 readings is unclear; however, the majority of the process monitoring data support that effective oxidant distribution was achieved throughout Treatment Area 2.

No significant elevated pH and persulfate readings were observed in the downgradient well (MW-10S), demonstrating that the oxidant solution remained within the treatment area and/or dispersed within a short distance downgradient.

POST-INJECTION GROUNDWATER PERFORMANCE SAMPLING

SAMPLING ACTIVITIES

In accordance with the RDR/RAWP, four performance groundwater monitoring events were completed at approximately 6 weeks (1.5 months), 12 weeks (3 months), 4 months, and 5 months following the completion of the first round of ISCO injections. Groundwater samples were collected at thirteen (13) wells (ISCO-MW-1 through ISCO-MW-9, IW1-BT-2, MW-14S, MW-10S, and PZ-1S). Samples were collected from two intervals at MW-14S. In addition, three upgradient wells (MW-5I, MW-11I, and IW-DR-1) were sampled during the 4th post round-1 sampling event (5 months following injections).

Wells were sampled using low-flow sampling methods in accordance with the RDR/RAWP and analyzed for the following parameters:

- VOCs (Target Compound List, SW846 8260)
- Total dissolved solids (SM 2540C)
- Sulfate (EPA 300)
- Metals (total/dissolved chromium, dissolved iron, sodium – SW846 6010)

Groundwater low-flow sampling logs from each monitoring event are included as [Attachment 7](#).

RESIDUAL PERSULFATE MEASUREMENTS/ASCORBIC ACID PRESERVATION

In May 2014, the USEPA requested that alternative preservation techniques be incorporated into the post-injection groundwater sampling approach, citing an EPA Groundwater Issue paper titled “Ground Water Sample Preservation at In-Situ Chemical Oxidation Sites – Recommended Guidelines”. The premise of the USEPA paper is that residual persulfate from the BASP injections may persist in groundwater within the treatment zones following the injection work. The residual persulfate may oxidize residual VOCs in

groundwater samples during the samples collection, handling, and analysis procedures, thereby providing a “biased low” indication of VOC concentrations in groundwater following ISCO injections. Based on the research documented in the EPA paper, the authors suggested that the addition of ascorbic acid as a field preservative during groundwater samples collection can serve to deactivate residual persulfate remaining in the groundwater, thereby eliminating the potential oxidation of VOCs during sample handling and yielding more representative analysis results for VOCs remaining in groundwater following the injection work.

In response to EPA’s concerns, on June 30 and July 1, as a part of the 2nd post-round 1 monitoring event, five of the ISCO treatment area wells (exhibiting the highest groundwater VOC concentrations based on prior monitoring results) were field-tested for the presence of residual persulfate to evaluate the presence/concentrations of persulfate remaining following the completion of the initial ISCO injection event (sodium persulfate injections were completed on March 31, 2014). The residual persulfate testing was conducted to evaluate the potential presence/concentrations of residual persulfate in groundwater within the treatment areas.

The five wells were sampled for residual persulfate via peristaltic pump and colorimetric testing kits, consistent with the persulfate field measurement approach used during the injection work. Persulfate field measurements for the five wells were as follows (approximate):

- ISCO-MW-1: 7 ppm
- ISCO-MW-2: >70 ppm
- ISCO-MW-3: ND
- ISCO-MW-5: 7-10 ppm
- ISCO-MW-9: 70 ppm

The four wells that exhibited residual persulfate were sampled again for residual persulfate via the colorimetric testing kits during low-flow groundwater sampling for the 3rd post-round 1 sampling event (8/7/14 – 8/8/14) prior to sample collection. Persulfate field measurements for the four wells were as follows (approximate):

- ISCO-MW-1: 7 ppm
- ISCO-MW-2: >70 ppm
- ISCO-MW-5: ND
- ISCO-MW-9: 35 ppm

Based on the above findings, groundwater VOC samples were collected during the 3rd post-round 1 sampling event at the four wells using standard preservation (i.e., HCl), with duplicate samples collected using the alternative sample preservation procedure (i.e., ascorbic acid with HCl) for comparison. Groundwater samples were collected/preserved in accordance with the RDR/RAWP and the updated SOP016 – Low Stress (Low Flow) Groundwater Purging and Sampling (as submitted to EPA on August 4, 2014) incorporating the use of the ascorbic acid preservation technique. [Table 1](#) presents the comparative groundwater results for the four wells using the two preservation methods (i.e., HCL preservative and ascorbic acid with HCL preservatives). VOC sampling results for the 4 wells using both standard (HCl) and ascorbic acid (AA+HCl) preservation methods yielded comparable results as shown in [Attachment 8](#).

During the 4th post-round 1 sampling event, the five wells initially tested in June/July for the presence of residual persulfate were sampled again for residual persulfate with the colorimetric testing kits. Persulfate field measurements for the four wells were as follows (approximate):

- ISCO-MW-1: 3 ppm
- ISCO-MW-2: 700 ppm

- ISCO-MW-3: 280 ppm
- ISCO-MW-5: ND
- ISCO-MW-9: 7 ppm

The persulfate concentrations measured during both the 3rd and 4th post-round 1 sampling events were relatively low in comparison to persulfate concentrations achieved during injections (greater than 5,250 ppm as presented in [Attachments 1-6](#)). Results from prior experience suggest that the majority of base activated persulfate oxidation reactions typically occur within the first several weeks following injections. Residual persulfate measured several months following injections may slowly be consumed via natural decomposition mechanisms (e.g. hydrolysis); however, these decomposition reactions are insignificant compared to the base activated persulfate reactions.

Comparative groundwater samples (i.e., standard vs. ascorbic acid preservation techniques) were again collected at these five wells during the 4th post-round 1 (9/10/14 – 9/11/14) sampling event using the same methods as the 3rd post-round 1 sampling event. [Table 1](#) also presents the results for groundwater samples collected at these five wells using the two preservation methods. Similar to the August event, VOC sampling for the 5 wells using both standard (HCl) and ascorbic acid (AA+HCl) preservation methods yielded comparable results in the September event as shown in [Attachment 8](#).

While similar, the total and compound specific VOC results using the ascorbic acid preservation method were actually somewhat lower than those using the standard preservation methods. Based on these data, it does not appear as though the standard preservation method results in a “biased low” indication of VOC concentrations in groundwater. Therefore, it is recommended that standard preservation methods (i.e., HCL preservative) be used for groundwater monitoring moving forward. It is also recommended that post-treatment persulfate monitoring be discontinued.

GROUNDWATER SAMPLING RESULTS

Post-injection groundwater performance monitoring results are presented in [Table 2](#). A summary of the baseline (January/February 2014) groundwater sampling results and the four post-round 1 sampling events results is shown on [Figure 4](#), along with updated estimated TCE and 1,2-DCA iso-concentration contours. Data validation results are included as [Attachment 11](#).

As described above, 13 wells (14 depth intervals) were sampled during the first three post-round 1 sampling events and 17 wells (18 depth intervals) were sampled during the 4th post-round 1 sampling event. A summary of groundwater results for each treatment area well from the post-round 1 performance monitoring events are described below and trend graphs are included as [Attachment 9](#).

- Treatment Area 1 (above the silty clay unit)

The post-injection groundwater performance monitoring results indicate that VOC concentrations, while relatively low, remain above NJGWQS in all Treatment Area 1 wells. In addition, following initial post-injection decreases, VOC concentrations in a few wells (ISCO-MW-2 and ISCO-MW-3) increased to somewhat higher levels by the 4th post-round 1 monitoring event. Sustained reductions in VOC concentrations were exhibited in some wells (e.g., 50-70% VOC reduction in ISCO-MW-2 and ISCO-MW-9).

- » ISCO-MW-2: Initial 90% decrease in VOCs (1,300 ug/L total Contaminants of Concern (COCs)¹ as identified via baseline groundwater monitoring in January 2014, down to 150 ug/L in the 1st groundwater sampling round), followed by an increase (4th round 640 ug/L – comprising mostly 1,2-DCA). However, the concentrations of TCE, PCE, and 1,1,2,2-TCA within the well appear to be neutral or slightly declining. Consistent with the baseline monitoring results, ISCO-MW-2 continues to exhibit the highest total VOC (primarily 1,2-DCA) concentrations at the Site.
- » ISCO-MW-3: Initial decrease in VOCs (55 ug/L baseline total COCs, down to 33 ug/L in the 1st round), followed by an increase (4th round 164 ug/L).
- » ISCO-MW-7, IW1-BT-2: Both wells exhibited slight upward trends in total COCs (baseline concentrations were 1-2 ug/L; 4th round concentrations were 13-20 ug/L).
- » ISCO-MW-8, ISCO-MW-9: Both wells exhibited downward trends in total COCs (baseline concentrations were 44 ug/L in both; 4th round concentrations were 1-16 ug/L).

■ Treatment Area 2 (below the silty clay unit)

The highest baseline VOC concentrations within Treatment Area 2 (at ISCO-MW-1 and ISCO-MW-5) were reduced to low-level VOC concentrations. The low-levels observed in the 4th post-round 1 sampling event at ISCO-MW-1 and ISCO-MW-5 were similar to those initially present in ISCO-MW-6 and PZ-1S during the baseline sampling event. Groundwater results are detailed as follows and trend graphs are included as [Attachment 9](#).

- » ISCO-MW-5 and ISCO-MW-1: Both wells exhibited downward trends in total COCs (baseline concentrations were 50-70 ug/L; 4th round total COCs were 4-5 ug/L)
- » PZ-1S and ISCO-MW-6: Both wells continue to exhibit low-level COC concentrations (baseline concentrations were 2 ug/L in both; 4th round concentrations were 7-8 ug/L) – the differences in these totals are due primarily to small increases in a few compounds to just above GWQS values.

■ General Observations

- » Downgradient wells (MW-10S, ISCO-MW-4, and MW-14S) continue to exhibit low-level COC concentrations (below NJGWQS at ISCO-MW-4 and MW-14S and marginally above at MW-10S).
- » Following initial increases in dissolved chromium concentration trends appear to be downward/neutral (e.g., ISCO-MW-9 and PZ-1S). No chromium detections have been identified in the downgradient wells, which supports that the chromium increases appear to be localized to the treatment areas. Based on findings from other case studies, chromium concentrations are expected to continue to decrease over time.
- » Increased acetone concentrations appear in a number of wells, although not at concentrations that would be of concern relative to its groundwater quality standards (i.e., 6,000 ug/L). The minor acetone concentrations detected are a typical by-product of the ISCO process and are expected to be transient.

As part of each groundwater sampling event, water level measurements were collected from each monitoring well. The data collected were used to generate groundwater contour maps for the shallow and perched aquifers. Groundwater elevations are summarized on [Table 3](#) and groundwater elevation contour maps are included as [Attachment 8](#). Groundwater flow direction in the perched aquifer is to the southeast. Groundwater flow

¹ Total COCs represents the sum of those contaminants above their respective New Jersey Groundwater Quality Standard (NJGWQS)

direction in the shallow aquifer was consistently to the southwest throughout the post-injection monitoring period. This groundwater flow direction is consistent with previous findings.

RECOMMENDATIONS FOR ROUND 2 ISCO INJECTIONS

TREATMENT AREA 1

Based on the overall findings from the post-injection groundwater performance monitoring, it is recommended that an additional round of ISCO injections be completed within Treatment Area 1. Injection points will be off-set from the first round of ISCO injections (refer to [Figure 5](#)) to provide overlapping radii of influence between the injection points and facilitate uniform oxidant delivery throughout the intended treatment volume. The injection testing performed during the 1st round of injections indicated effective BASP delivery into the subsurface as described above; therefore, injection volumes/dosage will remain consistent with those applied during round 1 injections and no additional ROI testing will be performed during the 2nd round of injections.

TREATMENT AREA 2

As described above, the highest baseline VOC concentrations within Treatment Area 2 (at ISCO-MW-1 and ISCO-MW-5) were reduced to low-level VOC concentrations. The low-levels observed in the 4th post-round 1 sampling event at ISCO-MW-1 and ISCO-MW-5 were similar to those initially present in ISCO-MW-6 and PZ-1S during the baseline sampling event. The approved RDR/RAWP defines the 'practical limits of the technology' as "the point in the program at which the application of additional ISCO treatment/expenditure of costs would yield only incremental/marginal improvements in groundwater quality and would not facilitate further achievement of the remedial action objectives." Both ISCO-MW-6 and PZ-1S continue to exhibit low-level VOC concentrations, slightly above NJGWQS. In addition, verification testing results as described above indicate that the BASP was effectively delivered into the subsurface. Based on these testing and sampling results, it is proposed that the practical limits of the ISCO technology have been achieved in Treatment Area 2.

Based on the above, no additional ISCO injections in Treatment Area 2 are recommended. Groundwater will continue to be monitored within Treatment Area 2 throughout the second round of ISCO injections and subsequent performance monitoring in Treatment Area 1 to further monitor VOC trends and conditions within Treatment Area 2 can support the potential for natural groundwater attenuation in accordance with the approved RDR/RAWP.

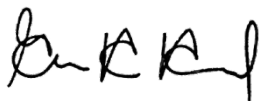
INJECTION SCHEDULE

The second round of ISCO injections is proposed to commence in March 2015. While injection work during the winter months (i.e., December through February) may be feasible, the anticipated weather conditions during this time period may pose both technical and health and safety concerns during the field implementation. As such, it is recommended that the current schedule be adjusted to reflect the proposed timing above.

Should you have any questions regarding this submission or require additional information, please do not hesitate to contact me at (732) 638-2930.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Gary Angyal, PE
Vice President

cc: EPLC Site Group
Mr. Chris Young, *de maximis, inc.*
Mr. Jeffrey Levesque, O'Brien & Gere Engineers, Inc.

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ATTACHMENTS:

Table 1 – Ascorbic Acid Preservation Comparison Table

Table 2 – Post-Round 1 Injections Groundwater Sampling Results

Table 3 – Groundwater Elevations

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – ISCO Injection Layout & Monitoring Plan

Figure 4 – Post-Round 1 Injections Groundwater Sampling Results

Figure 5 – Proposed Round 2 ISCO Injection Layout

Attachment 1 – Treatment Area 1 Verification Testing Layout & Results

Attachment 2 – Treatment Area 1 Injection Summary & Process Monitoring Results

Attachment 3 – Treatment Area 2 First Verification Testing Layout & Results

Attachment 4 – Treatment Area 2 Second Verification Testing Layout & Results

Attachment 5 – Treatment Area 2 Third Verification Testing Layout & Results

Attachment 6 – Treatment Area 2 Injection Summary & Process Monitoring Results

Attachment 7 – Groundwater Low-Flow Sampling Logs

Attachment 8 – Ascorbic Acid Preservation Comparison Graphs

Attachment 9 – Groundwater Results Trend Graphs

Attachment 10 – Groundwater Elevation Contour Maps

Attachment 11 – Data Validation Results

Tables

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey

Sample ID	NJ CLASS IIA GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	ISCO-MW-1				ISCO-MW-2				ISCO-MW-3				ISCO-MW-5				ISCO-MW-9					
Residual Persulfate Concentration: Preservative Sample Date Unit		7 ppm		3 ppm		>70 ppm		700 ppm		280 ppm		ND		ND		35 ppm		7 ppm					
		HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL	HCL	AA+HCL				
		8/8/2014 ug/L	8/8/2014 ug/L	9/11/2014 ug/L	9/11/2014 ug/L	8/8/2014 ug/L	8/8/2014 ug/L	9/11/2014 ug/L	9/11/2014 ug/L	9/11/2014 ug/L	9/11/2014 ug/L	8/8/2014 ug/L	8/8/2014 ug/L	9/11/2014 ug/L	9/11/2014 ug/L	8/8/2014 ug/L	8/8/2014 ug/L	9/10/2014 ug/L	9/10/2014 ug/L				
Volatile Organic Compounds (VOCs)																							
Acetone	6000	ND (2.6)	ND (2.6)	ND (2.6)	ND (2.6)	375	302	304	235	33.8	27.5	ND (2.6)	ND (2.6)	ND (2.6)	ND (2.6)	ND (2.6)	ND (2.6)	ND (2.6)	9.2	J			
Benzene	1	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	2.3	3.4	1.7	2.3	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)				
Bromochloromethane	-	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.97)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)				
Bromodichloromethane	1	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.56)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)				
Bromoform	4	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.62)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)				
Bromomethane	10	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	41.2	70.8	26.7	32	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)				
2-Butanone (MEK)	300	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	316	357	239	185	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)				
Carbon disulfide	700	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	38	25.8	20	18.6	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)				
Carbon tetrachloride	1	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	0.27	J	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)				
Chlorobenzene	50	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.54)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)				
Chloroethane	-	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	0.8	J	ND (1.1)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)				
Chloroform	70	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	4.2	3.6	3.6	3.3	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)				
Chloromethane	-	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	4.3	4.2	3.4	2.8	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)				
Cyclohexane	-	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.74)	ND (0.37)	ND (0.37)	ND (0.37)	0.65	J	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)				
1,2-Dibromo-3-chloropropane	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (2.3)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)				
Dibromochloromethane	1	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.50)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)				
1,2-Dibromoethane	0.03	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.45)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)				
1,2-Dichlorobenzene	600	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.52	J	5.1	0.68	J	2.7	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)				
1,3-Dichlorobenzene	600	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.51)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)				
1,4-Dichlorobenzene	75	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	0.45	J	ND (0.47)	0.24	J	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)				
Dichlorodifluoromethane	1000	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (1.5)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)				
1,1-Dichloroethane	50	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.70)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)				
1,2-Dichloroethane	2	2.9	2.7	4	3.7	485	554	574	476	ND (0.30)	ND (0.30)	1.2	1	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	0.79	J			
1,1-Dichloroethene	1	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.99)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)				
cis-1,2-Dichloroethene	70	1.1	ND (0.33)	ND (0.33)	ND (0.33)	0.63	J	0.34	J	ND (0.65)	ND (0.33)	73.8	66.9	5.7	3.1	0.93	J	0.84	J	9.3	ND (0.33)	ND (0.33)	ND (0.33)
trans-1,2-Dichloroethene	100	19.3	15.1	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (1.0)	ND (0.51)	13.4	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	19.9	29.7	ND (0.51)	ND (0.51)				
1,2-Dichloropropane	1	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.87)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)				
cis-1,3-Dichloropropene	-	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.57)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)				
trans-1,3-Dichloropropene	-	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.63)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)				
1,4-Dioxane	-	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (100)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)	ND (51)				
Ethylbenzene	700	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.79)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)				
Freon 113	-	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.89)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)				
2-Hexanone	-	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (3.5)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)				
Isopropylbenzene	700	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.51)	ND (0.26)	ND (0.26)	ND (0.26)	0.79	J	0.41	J	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)				
Methyl Acetate	7000	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (6.2)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)	ND (3.1)				
Methylcyclohexane	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.43)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)				
Methyl Tert Butyl Ether	70	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.53)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)				
4-Methyl-2-pentanone(MIBK)	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (2.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)				
Methylene chloride	3	ND (0.81)	ND (0.81)	1.6	J	1.4	J	3.4	3.3	2.4	J	2.3	ND (0.81)	ND (0.81)	ND (0.81)	ND (0.81)	ND (0.81)	ND (0.81)	ND (0.81)				
Styrene	100	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.51)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)				
1,1,2,2-Tetrachloroethane	1	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	17.6	16.4	24.6	16.2	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)				
Tetrachloroethene	1	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	3.7	1.6	3.3	1.7	2.4	1.7	0.4	J	ND (0.35)	0.45	J	0.41	J	1	0.75	J	1.4	1
Toluene	600	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	0.6	J	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)				
1,2,3-Trichlorobenzene	-	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	1.6	J	ND (0.53)	0.68	J	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)				
1,2,4-Trichlorobenzene	9	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	0.6	J	13.5	0.72	J	7.6	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	0.47	J			
1,1,1-Trichloroethane	30	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.64)	ND (0.32)	ND (0.32)	ND (0.32)	1.4	0.79	J	0.74	J	0.85	J	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	
1,1,2-Trichloroethane	3	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	0.46	J	ND (0.28)	ND (0.55)	0.34	J	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	
Trichloroethene	1	ND (0.25)	ND (0.25)	0.48	J	0.34	J	16.3	6.5	14.6	7.9	87.1	68.3	18.4	11.2	4.8	4.4	14.7	11.3	14.8	13.3		
Trichlorofluoromethane	2000	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.56)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	
Vinyl chloride	1	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.35)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	
m,p-Xylene	-	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.90)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	
o-Xylene	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.40)	ND (0.20)	ND (0.20)	ND (0.20)	1.5	0.91	J	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	
Xylene (total)	1000	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.40)	ND (0.20)	ND (0.20)	ND (0.20)	1.5	0.91	J	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	
Total VOCs	-	23.3	17.8	6.08	5.44	1310.08																	

Notes:
ND, < Not Detected Above Detection Limits
-- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria
HCL - Hydrochloric Acid
AA - Ascorbic Acid

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID	NJ CLASS IIA	EB-01_05122014	EB-01_05122014	EB-01_05132014	EB-02_05132014	EB-03_05142014	EB-03_05142014	EB-03_05142014	EB-03_05142014	TB-01_05132014	TB-02_05142014	1RND1_ISCOMW-1	1RND1_ISCOMW-1	1RND1_ISCOMW-2	1RND1_ISCOMW-2	1RND1_ISCOMW-3	1RND1_ISCOMW-3	1RND1_ISCOMW-4	1RND1_ISCOMW-4	1RND1_ISCOMW-5
Lab Sample ID	GROUNDWATER QUALITY	JB66824-5	JB66824-5F	JB66824-9	JB66824-9F	JB66824-19	JB66824-19F	JB66824-19F	JB66824-19F	JB66824-10	JB66824-20	JB66824-14	JB66824-14F	JB66824-15	JB66824-15F	JB66824-4	JB66824-4F	JB66824-2	JB66824-2F	JB66824-16
Sample Date	CRITERIA (7/22/2010)	5/12/2014	5/12/2014	5/13/2014	5/13/2014	5/14/2014	5/14/2014	5/14/2014	5/14/2014	5/13/2014	5/14/2014	5/14/2014	5/14/2014	5/14/2014	5/14/2014	5/12/2014	5/12/2014	5/12/2014	5/12/2014	5/14/2014
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	GW	GW	GW	GW	GW	GW	GW	GW	GW
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds (VOCs)																				
Acetone	6000	ND (3.3)	-	ND (3.3)	-	ND (3.3)	-	ND (3.3)	-	ND (3.3)	ND (3.3)	6.9	J	-	177	-	94.4	-	ND (3.3)	13.4
Benzene	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	ND (0.28)	-	0.47	J	-	ND (0.28)	-	ND (0.28)	0.67
Bromochloromethane	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	ND (0.42)	ND (0.42)	-	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	ND (0.42)
Bromodichloromethane	1	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
Bromoform	4	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)
Bromomethane	10	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	ND (0.56)	ND (0.56)	-	0.87	J	-	2	-	ND (0.56)	ND (0.56)
2-Butanone (MEK)	300	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	ND (3.2)	ND (3.2)	-	23.5	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)
Carbon disulfide	700	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	ND (0.18)	ND (0.18)	-	0.59	J	-	0.28	J	ND (0.18)	ND (0.18)
Carbon tetrachloride	1	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	ND (0.23)	ND (0.23)	-	2	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)
Chlorobenzene	50	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)
Chloroethane	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)
Chloroform	70	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	-	4.7	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)
Chloromethane	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	ND (0.36)	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)
Cyclohexane	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	ND (0.18)	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)
1,2-Dibromo-3-chloropropane	0.02	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	ND (1.3)	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)
Dibromochloromethane	1	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	ND (0.19)	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)
1,2-Dibromoethane	0.03	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	ND (0.16)	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)
1,2-Dichlorobenzene	600	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	ND (0.20)	-	0.21	J	ND (0.20)	-	ND (0.20)	-	ND (0.20)
1,3-Dichlorobenzene	600	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)
1,4-Dichlorobenzene	75	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)
Dichlorodifluoromethane	1000	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	ND (0.63)	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)
1,1-Dichloroethane	50	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	0.45
1,2-Dichloroethane	2	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	5.9	-	21.3	-	0.38	J	ND (0.22)	-	30.9
1,1-Dichloroethene	1	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	ND (0.34)	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)
cis-1,2-Dichloroethene	70	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	-	ND (0.24)	-	39	-	ND (0.24)	-	1.8
trans-1,2-Dichloroethene	100	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	ND (0.38)	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)
1,2-Dichloropropane	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)
cis-1,3-Dichloropropene	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	ND (0.15)	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)
trans-1,3-Dichloropropene	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
1,4-Dioxane	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	ND (73)	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)
Ethylbenzene	700	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
Freon 113	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	ND (0.77)	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)
2-Hexanone	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)
Isopropylbenzene	700	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	0.74
Methyl Acetate	7000	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)
Methylcyclohexane	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	ND (0.15)	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)
Methyl Tert Butyl Ether	70	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	ND (0.29)	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)
4-Methyl-2-pentanone(MIBK)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)
Methylene chloride	3	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	ND (0.86)	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)
Styrene	100	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)
1,1,2,2-Tetrachloroethane	1	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	ND (0.20)	-	50.1	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)
Tetrachloroethene	1	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	-	16.6	-	0.75	J	ND (0.25)	-	ND (0.25)
Toluene	600	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	ND (0.44)	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)
1,2,3-Trichlorobenzene	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	ND (0.22)	-	1.3	J	ND (0.22)	-	ND (0.22)	-	ND (0.22)
1,1,1-Trichloroethane	30	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	0.54
1,1,2-Trichloroethane	3	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	-	0.72	J	ND (0.21)	-	ND (0.21)	-	ND (0.21)
Trichloroethene	1	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	0.72	J	-	60.7	-	33.2	-	ND (0.50)	22.2
Trichlorofluoromethane	2000	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)
Vinyl chloride	1	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	ND (0.41)	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)
m,p-Xylene	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	ND (0.40)	ND (0.40)	-	ND (0.40)						

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID Lab Sample ID Sample Date Matrix Unit	NJ CLASS I/A GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	1RND1_ISCOMW-5 JB66824-16F 5/14/2014 GW-FILTERED ug/L	1RND1_DUP01 JB66824-18 5/14/2014 GW ug/L	1RND1_DUP01 JB66824-18F 5/14/2014 GW-FILTERED ug/L	1RND1_ISCOMW-6 JB66824-17 5/14/2014 GW ug/L	1RND1_ISCOMW-6 JB66824-17F 5/14/2014 GW-FILTERED ug/L	1RND1_ISCOMW-7 JB66824-3 5/12/2014 GW ug/L	1RND1_ISCOMW-7 JB66824-3F 5/12/2014 GW-FILTERED ug/L	1RND1_ISCOMW-8 JB66824-1 5/12/2014 GW ug/L	1RND1_ISCOMW-8 JB66824-1F 5/12/2014 GW-FILTERED ug/L	1RND1_ISCOMW-9 JB66824-13 5/13/2014 GW ug/L	1RND1_ISCOMW-9 JB66824-13F 5/13/2014 GW-FILTERED ug/L	1RND1_IW1-BT-2 JB66824-12 5/13/2014 GW ug/L	1RND1_IW1-BT-2 JB66824-12F 5/13/2014 GW-FILTERED ug/L	1RND1_MW-10S JB66824-8 5/13/2014 GW ug/L	1RND1_MW-10S JB66824-8F 5/13/2014 GW-FILTERED ug/L	1RND1_MW-14SA JB66824-6 5/13/2014 GW ug/L
Volatile Organic Compounds (VOCs)																	
Acetone	6000	-	ND (3.3)	-	ND (3.3)	-	26.6	-	26.1	-	36.7	-	17.5	-	ND (3.3)	-	ND (3.3)
Benzene	1	-	0.66	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)
Bromochloromethane	-	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)
Bromodichloromethane	1	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
Bromoform	4	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)
Bromomethane	10	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	1.1	J	ND (0.56)	-	ND (0.56)
2-Butanone (MEK)	300	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)
Carbon disulfide	700	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	0.32	J	-	0.5	J	-	ND (0.18)	-	ND (0.18)
Carbon tetrachloride	1	-	ND (0.23)	-	ND (0.23)	-	0.81	J	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)
Chlorobenzene	50	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)
Chloroethane	-	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)
Chloroform	70	-	ND (0.25)	-	ND (0.25)	-	1.5	-	0.83	J	ND (0.25)	-	0.38	J	ND (0.25)	-	ND (0.25)
Chloromethane	-	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	0.75	J	ND (0.36)	-	ND (0.36)
Cyclohexane	-	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)
1,2-Dibromo-3-chloropropane	0.02	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)
Dibromochloromethane	1	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)
1,2-Dibromoethane	0.03	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)
1,2-Dichlorobenzene	600	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)
1,3-Dichlorobenzene	600	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)
1,4-Dichlorobenzene	75	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)
Dichlorodifluoromethane	1000	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)
1,1-Dichloroethane	50	-	0.48	J	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)
1,2-Dichloroethane	2	-	32.2	-	2.2	-	ND (0.22)	-	1	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)
1,1-Dichloroethene	1	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)
cis-1,2-Dichloroethene	70	-	1.8	-	2.5	-	ND (0.24)	-	0.54	J	-	0.91	J	-	ND (0.24)	-	ND (0.24)
trans-1,2-Dichloroethene	100	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-	ND (0.38)
1,2-Dichloropropane	1	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)
cis-1,3-Dichloropropene	-	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)
trans-1,3-Dichloropropene	-	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
1,4-Dioxane	-	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)
Ethylbenzene	700	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
Freon 113	-	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)
2-Hexanone	-	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)
Isopropylbenzene	700	-	0.74	J	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)
Methyl Acetate	7000	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)
Methylcyclohexane	-	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)
Methyl Tert Butyl Ether	70	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)
4-Methyl-2-pentanone(MIBK)	-	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)
Methylene chloride	3	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)	-	ND (0.86)
Styrene	100	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)
1,1,2,2-Tetrachloroethane	1	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)
Tetrachloroethene	1	-	ND (0.25)	-	0.36	J	0.83	J	0.63	J	-	0.55	J	-	ND (0.25)	-	ND (0.25)
Toluene	600	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)	-	ND (0.44)
1,2,3-Trichlorobenzene	-	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)
1,2,4-Trichlorobenzene	9	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)
1,1,1-Trichloroethane	30	-	0.54	J	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)
1,1,2-Trichloroethane	3	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)
Trichloroethene	1	-	21.9	-	6.1	-	3	-	2.4	-	21.1	-	3.1	-	ND (0.50)	-	ND (0.50)
Trichlorofluoromethane	2000	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)
Vinyl chloride	1	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)
m,p-Xylene	-	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)
o-Xylene	-	-	1.2	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)
Xylene (total)	1000	-	1.2	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)
Total VOCs	-	-	59.52	-	11.16	-	32.74	-	31.82	-	59.76	-	24.52	-	0	-	0
GC/MS Volatile TIC																	
Total TIC, Volatile	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Total Alkanes	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Metals Analysis																	
Chromium	70	<10	<10	<10	<10	<10	946	1060	5560	6320	538 a	220	863 a	338	<10	<10	<10
Iron	300	101	-	<100	-	<100	-	17600	-	2360	-	6650	-	1220	-	<100	-
Sodium	50000	-	40600	-	48100	-	784000	-	2250000	-	578000 a	-	344000 a	-	<10000	-	103000
General Chemistry																	
Solids, Total Dissolved	500000	-	227000	-	254000	-	4430000	-	10900000	-	2430000	-	1600000	-	45000	-	677000
Sulfate	250000	-	94100	-	134000	-	511000	-	2600000	-	742000	-	518000	-	22200	-	291000

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID	NJ CLASS I/A	1RND1_MW-145A	1RND1_MW-145B	1RND1_MW-145B	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S	1RND1_PZ-1S
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Notes:
ND, < Not Detected Above Detection Limits
– Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID	NJ CLASS IIA	1RND2_ISCO-MW4	1RND2_ISCO-MW4	1RND2_ISCO-MW5	1RND2_ISCO-MW5	1RND2_ISCO-MW6	1RND2_ISCO-MW6	1RND2_DUP	1RND2_ISCO-MW7	1RND2_ISCO-MW7	1RND2_ISCO-MW8	1RND2_ISCO-MW8	1RND2_ISCO-MW9	1RND2_ISCO-MW9	1RND2_IW2-BT2	1RND2_IW2-BT2			
Lab Sample ID	GROUNDWATER QUALITY	J870619-2	J870619-2F	J870619-5	J870619-5F	J870619-10	J870619-10F	J870619-18F	J870619-4	J870619-4F	J870619-12	J870619-12F	J870619-7	J870619-7F	J870619-15	J870619-15F			
Sample Date	CRITERIA (7/22/2010)	6/30/2014	6/30/2014	6/30/2014	6/30/2014	7/1/2014	7/1/2014	7/1/2014	6/30/2014	6/30/2014	7/1/2014	7/1/2014	7/1/2014	7/1/2014	7/1/2014	7/1/2014			
Matrix		GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW - FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED			
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
Volatile Organic Compounds (VOCs)																			
Acetone	6000	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	24	-	36.8	-	5.6	J	-	9.2	J	-
Benzene	1	ND (0.21)	-	0.73	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	-	-
Bromochloromethane	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	-	-
Bromodichloromethane	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	-
Bromoform	4	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	-	-
Bromomethane	10	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	-	-
2-Butanone (MEK)	300	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	2.8	J	-	-
Carbon disulfide	700	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	-	-
Carbon tetrachloride	1	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	0.65	J	0.35	J	ND (0.24)	-	ND (0.24)	-	-	-
Chlorobenzene	50	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	-	-
Chloroethane	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	-	-
Chloroform	70	0.31	J	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	1.6	-	1.4	-	ND (0.20)	-	ND (0.20)	-	-	-
Chloromethane	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	-	-
Cyclohexane	-	ND (0.37)	-	0.91	J	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	-	-
1,2-Dibromo-3-chloropropane	0.02	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	-	-
Dibromochloromethane	1	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	-	-
1,2-Dibromoethane	0.03	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	-	-
1,2-Dichlorobenzene	600	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	-	-
1,3-Dichlorobenzene	600	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	-
1,4-Dichlorobenzene	75	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	-	-
Dichlorodifluoromethane	1000	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	-	-
1,1-Dichloroethane	50	ND (0.35)	-	0.41	J	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	-	-
1,2-Dichloroethane	2	0.37	J	-	5.2	-	1.9	2.1	-	ND (0.30)	-	0.48	J	ND (0.30)	-	ND (0.30)	-	-	-
1,1-Dichloroethene	1	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	-	-
cis-1,2-Dichloroethene	70	ND (0.33)	-	4.3	-	4.7	-	4.8	-	ND (0.33)	-	0.61	J	0.43	J	12.9	-	-	-
trans-1,2-Dichloroethene	100	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	2.2	-	-	-
1,2-Dichloropropane	1	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	-	-
cis-1,3-Dichloropropene	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	-
trans-1,3-Dichloropropene	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	-	-
1,4-Dioxane	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	-	-
Ethylbenzene	700	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	-	-
Freon 113	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	-	-
2-Hexanone	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	-	-
Isopropylbenzene	700	ND (0.26)	-	1.8	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	-
Methyl Acetate	7000	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	-	-
Methylcyclohexane	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	-	-
Methyl Tert Butyl Ether	70	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	-
4-Methyl-2-pentanone(MIBK)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	-	-
Methylene chloride	3	1.2	J	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	-	-
Styrene	100	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	-
1,1,2,2-Tetrachloroethane	1	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	-	-
Tetrachloroethene	1	ND (0.35)	-	ND (0.35)	-	0.49	J	0.49	J	0.61	J	0.58	J	0.83	J	0.76	J	-	-
Toluene	600	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	-	-
1,2,3-Trichlorobenzene	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	-
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	-	-
1,1,1-Trichloroethane	30	ND (0.32)	-	1.3	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	-	-
1,1,2-Trichloroethane	3	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	-
Trichloroethene	1	0.73	J	33.6	-	8.9	-	8.8	-	2.9	-	2.9	-	15.8	-	26.8	-	-	-
Trichlorofluoromethane	2000	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	-
Vinyl chloride	1	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	-	-
m,p-Xylene	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	-	-
o-Xylene	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	-	-
Xylene (total)	1000	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	-	-
Total VOCs	-	2.61	-	48.25	-	15.99	-	16.19	-	29.76	-	43.12	-	22.66	-	54.66	-	-	-
GC/MS Volatile TIC																			
Total TIC, Volatile	-	0	-	17	J	-	0	-	0	-	0	-	0	-	0	-	0	-	-
Total Alkanes	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-
Metals Analysis																			
Chromium	70	13.1	<10	<10	<10	27.5	<10	25.3	<10	490	473	2820	2900	86.9	18.3	584	<10	-	-
Iron	300	-	<100	-	186	-	<100	-	<100	-	5760	-	<100	-	<100	-	<100	-	-
Sodium	50000	11800	-	22900	-	46200	-	46600	-	598000	-	1760000	-	147000	-	197000	-	-	-
General Chemistry																			
Solids, Total Dissolved	500000	90000	-	153000	-	50000	-	305000	-	3980000	-	6010000	-	900000	-	1160000	-	-	-
Sulfate	250000	41100	-	74800	-	145000	-	148000	-	703000	-	1910000	-	212000	-	465000	-	-	-

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID	NJ CLASS IIA	1RND2_MW-10S	1RND2_MW-10S	1RND2_MW-14S-D	1RND2_MW-14S-D	1RND2_MW-14S-S	1RND2_MW-14S-S	1RND2_PZ-1S	1RND2_PZ-1S	1RND3_FB_080714	1RND3_FB_080714	1RND3_FB_080814	1RND3_FB_080814	TB	1RND3_ISCO-MW1	1RND3_ISCO-MW1	1RND3_ISCO-MW1_ASC_080814
Lab Sample ID	GROUNDWATER QUALITY	J870619-1	J870619-1F	J870619-13	J870619-13F	J870619-14	J870619-14F	J873631-8	J870619-8F	J873631-17	J873631-17F	J873631-16	J873631-16F	J873631-18	J873631-11	J873631-11F	J873631-20
Sample Date	CRITERIA (7/22/2010)	6/30/2014	6/30/2014	7/1/2014	7/1/2014	7/1/2014	7/1/2014	7/1/2014	7/1/2014	8/7/2014	8/7/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014
Matrix		GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	WATER	WATER-FILTERED	WATER	WATER-FILTERED	WATER	GW	GW-FILTERED	GW
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds (VOCs)																	
Acetone	6000	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	3.7	J	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	ND (2.6)	ND (2.6)
Benzene	1	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)
Bromochloromethane	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	ND (0.49)	-	ND (0.49)
Bromodichloromethane	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)
Bromoform	4	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	ND (0.31)	-	ND (0.31)
Bromomethane	10	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)
2-Butanone (MEK)	300	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	ND (2.5)	-	ND (2.5)
Carbon disulfide	700	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)
Carbon tetrachloride	1	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	-	ND (0.24)
Chlorobenzene	50	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	ND (0.27)	-	ND (0.27)
Chloroethane	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	ND (0.56)	-	ND (0.56)
Chloroform	70	ND (0.20)	-	ND (0.20)	-	0.27	J	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)
Chloromethane	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	-	ND (0.33)
Cyclohexane	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	ND (0.37)	-	ND (0.37)
1,2-Dibromo-3-chloropropane	0.02	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	ND (1.2)	-	ND (1.2)
Dibromochloromethane	1	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	-	ND (0.25)
1,2-Dibromoethane	0.03	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	ND (0.23)	-	ND (0.23)
1,2-Dichlorobenzene	600	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	ND (0.16)	-	ND (0.16)
1,3-Dichlorobenzene	600	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)
1,4-Dichlorobenzene	75	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	-	ND (0.24)
Dichlorodifluoromethane	1000	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	ND (0.73)	-	ND (0.73)
1,1-Dichloroethane	50	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)
1,2-Dichloroethane	2	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-	3.8	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	2.9	-	2.7
1,1-Dichloroethene	1	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)
cis-1,2-Dichloroethene	70	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	1.1	-	ND (0.33)
trans-1,2-Dichloroethene	100	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	19.3	-	15.1
1,2-Dichloropropane	1	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	ND (0.43)	-	ND (0.43)
cis-1,3-Dichloropropene	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)
trans-1,3-Dichloropropene	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)
1,4-Dioxane	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	ND (51)	-	ND (51)
Ethylbenzene	700	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	ND (0.40)	-	ND (0.40)
Freon 113	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)
2-Hexanone	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	ND (1.7)	-	ND (1.7)
Isopropylbenzene	700	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)
Methyl Acetate	7000	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	ND (3.1)	-	ND (3.1)
Methylcyclohexane	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)
Methyl Tert Butyl Ether	70	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)
4-Methyl-2-pentanone(MIBK)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	ND (1.1)	-	ND (1.1)
Methylene chloride	3	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	ND (0.81)	-	ND (0.81)
Styrene	100	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)
1,1,2,2-Tetrachloroethane	1	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)
Tetrachloroethene	1	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)
Toluene	600	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)
1,2,3-Trichlorobenzene	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)
1,1,1-Trichloroethane	30	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)
1,1,2-Trichloroethane	3	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)
Trichloroethene	1	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	1.7	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	-	ND (0.25)
Trichlorofluoromethane	2000	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)
Vinyl chloride	1	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	ND (0.17)	-	ND (0.17)
m,p-Xylene	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)
o-Xylene	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)
Xylene (total)	1000	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)
Total VOCs	-	0	-	0	-	0	-	9.47	-	0	-	0	-	0	23.3	-	17.8
GC/MS Volatile TIC																	
Total TIC, Volatile	-	0	-	0	-	0	-	11	J	-	0	-	0	-	0	-	0
Total Alkanes	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	-	0
Metals Analysis																	
Chromium	70	<10	<10	<10	<10	<10	<10	105	86	<10	<10	<10	<10	-	<10	<10	-
Iron	300	-	<100	-	<100	-	<100	-	1880	-	<100	-	<100	-	-	128	-
Sodium	50000	<10000	-	125000	-	111000	-	174000	-	<10000	-	<10000	-	-	50400	-	-
General Chemistry																	
Solids, Total Dissolved	500000	32000	-	731000	-	669000	-	1040000	-	<10000	-	<10000	-	-	262000	-	-
Sulfate	250000	18700	-	218000	-	195000	-	128000	-	<10000	-	<10000	-	-	122000		

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID	NJ CLASS I/A	1RND3_ISCO-MW2	1RND3_ISCO-MW2	1RND3_ISCO-MW2 ASC_080814	1RND3_ISCO-MW3	1RND3_ISCO-MW3	1RND3_ISCO-MW4	1RND3_ISCO-MW4	1RND3_ISCO-MW5	1RND3_ISCO-MW5	1RND3_ISCO-MW5 ASC_080814	1RND3_ISCO-MW6	1RND3_ISCO-MW6	1RND3_ISCO-MW7	1RND3_ISCO-MW7	1RND3-DUP_080714	
Lab Sample ID	GROUNDWATER QUALITY	JB73631-13	JB73631-13F	JB73631-22	JB73631-6	JB73631-6F	JB73631-12	JB73631-12F	JB73631-21	JB73631-21F	JB73631-1	JB73631-1F	JB73631-4	JB73631-4F	JB73631-9		
Sample Date	CRITERIA (7/22/2010)	8/8/2014	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	8/8/2014	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014		
Matrix		GW	GW-FILTERED	GW	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW	GW-FILTERED	GW	GW-FILTERED		
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
Volatile Organic Compounds (VOCs)																	
Acetone	6000	375	-	302	47.3	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	ND (2.6)	-	28.4	-	29	
Benzene	1	2.3	-	3.4	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	
Bromochloromethane	-	ND (0.49)	-	ND (0.49)	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	ND (0.49)	-	ND (0.49)	-	ND (0.49)	
Bromodichloromethane	1	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	
Bromoform	4	ND (0.31)	-	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	
Bromomethane	10	41.2	-	70.8	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	2.1	-	2	
2-Butanone (MEK)	300	316	-	357	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	ND (2.5)	-	ND (2.5)	-	ND (2.5)	
Carbon disulfide	700	38	-	25.8	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	-	ND (0.50)	
Carbon tetrachloride	1	0.27	J	ND (0.24)	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	-	0.63	J	0.68	
Chlorobenzene	50	ND (0.27)	-	ND (0.27)	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	ND (0.27)	-	ND (0.27)	-	ND (0.27)	
Chloroethane	-	ND (0.56)	-	0.8	ND (0.56)	J	ND (0.56)	-	ND (0.56)	-	ND (0.56)	ND (0.56)	-	ND (0.56)	-	ND (0.56)	
Chloroform	70	4.2	-	3.6	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	1.6	-	1.6	
Chloromethane	-	4.3	-	4.2	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	-	0.6	J	0.5	
Cyclohexane	-	ND (0.37)	-	ND (0.37)	ND (0.37)	-	ND (0.37)	-	0.65	J	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	
1,2-Dibromo-3-chloropropane	0.02	ND (1.2)	-	ND (1.2)	ND (1.2)	-	ND (1.2)	-	ND (1.2)	J	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	
Dibromochloromethane	1	ND (0.25)	-	ND (0.25)	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	
1,2-Dibromoethane	0.03	ND (0.23)	-	ND (0.23)	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	
1,2-Dichlorobenzene	600	0.52	J	5.1	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	
1,3-Dichlorobenzene	600	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	
1,4-Dichlorobenzene	75	ND (0.24)	-	0.45	ND (0.24)	J	ND (0.24)	-	ND (0.24)	-	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	
Dichlorodifluoromethane	1000	ND (0.73)	-	ND (0.73)	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	
1,1-Dichloroethane	50	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	
1,2-Dichloroethane	2	485	-	554	ND (0.30)	-	ND (0.30)	-	1.2	-	-	3.4	-	2.5	-	2.5	
1,1-Dichloroethene	1	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	
cis-1,2-Dichloroethene	70	0.63	J	0.34	ND (0.33)	J	ND (0.33)	-	5.7	-	-	3.1	-	5.9	-	6.8	
trans-1,2-Dichloroethene	100	ND (0.51)	-	ND (0.51)	ND (0.51)	-	ND (0.51)	-	30.3	-	-	ND (0.51)	-	ND (0.51)	-	11.9	
1,2-Dichloropropane	1	ND (0.43)	-	ND (0.43)	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	
cis-1,3-Dichloropropene	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	
trans-1,3-Dichloropropene	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	
1,4-Dioxane	-	ND (51)	-	ND (51)	ND (51)	-	ND (51)	-	ND (51)	-	-	ND (51)	-	ND (51)	-	ND (51)	
Ethylbenzene	700	ND (0.40)	-	ND (0.40)	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	
Freon 113	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	
2-Hexanone	-	ND (1.7)	-	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	
Isopropylbenzene	700	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	0.79	J	-	0.41	J	ND (0.26)	-	ND (0.26)	
Methyl Acetate	7000	ND (3.1)	-	ND (3.1)	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	
Methylcyclohexane	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	
Methyl Tert Butyl Ether	70	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	
4-Methyl-2-pentanone(MIBK)	-	ND (1.1)	-	ND (1.1)	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	
Methylene chloride	3	3.4	-	3.3	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	
Styrene	100	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	
1,1,2,2-Tetrachloroethane	1	17.6	-	16.4	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	
Tetrachloroethene	1	3.7	-	1.6	2	-	ND (0.35)	-	0.4	J	-	ND (0.35)	0.41	J	0.66	J	
Toluene	600	0.6	J	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	
1,2,3-Trichlorobenzene	-	ND (0.26)	-	1.6	ND (0.26)	J	ND (0.26)	-	ND (0.26)	-	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	
1,2,4-Trichlorobenzene	9	0.6	J	13.5	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	
1,1,1-Trichloroethane	30	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	
1,1,2-Trichloroethane	3	0.46	J	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	ND (0.28)	J	ND (0.28)	-	ND (0.28)	
Trichloroethene	1	16.3	-	6.5	71.5	-	0.64	J	18.4	-	-	11.2	-	5.5	-	2.1	
Trichlorofluoromethane	2000	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	
Vinyl chloride	1	ND (0.17)	-	ND (0.17)	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	
m,p-Xylene	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	
o-Xylene	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	1.5	-	-	0.91	J	ND (0.20)	-	ND (0.20)	
Xylene (total)	1000	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	1.5	-	-	0.91	J	ND (0.20)	-	ND (0.20)	
Total VOCs	-	1310.08	-	1370.39	235	-	30.94	-	30.04	-	17.41	-	13.01	-	56.69	-	57.7
GC/MS Volatile TIC																	
Total TIC, Volatile	-	35.3	J	-	37.7	J	19	J	-	0	-	5.5	J	-	0	-	0
Total Alkanes	-	0	-	-	0	-	0	-	-	0	-	-	-	0	-	-	0
Metals Analysis																	
Chromium	70	1090	-	762	-	-	3450	-	5280	<10	<10	<10	-	<10	<10	275	304
Iron	300	-	<100	-	-	-	<100	-	-	<100	393	-	<100	-	3180	-	294
Sodium	50000	2050000	-	-	-	-	1110000	-	-	14100	-	-	62700	-	464000	-	505000
General Chemistry																	
Solids, Total Dissolved	500000	4850000	-	-	-	-	5330000	-	84000	-	105000	-	360000	-	746000	-	3720000
Sulfate	250000	2630000	-	-	-	-	1790000	-	45300	-	62100	-	189000	-	718000	-	718000

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID Lab Sample ID Sample Date Matrix Unit	NJ CLASS I/A GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	1RND3-DUP_080714 JB73631-9F 8/7/2014 GW-FILTERED ug/L	1RND3_ISCO-MW8 JB73631-2 8/7/2014 GW ug/L	1RND3_ISCO-MW8 JB73631-2F 8/7/2014 GW-FILTERED ug/L	1RND3_ISCO-MW9 JB73631-10 8/8/2014 GW ug/L	1RND3_ISCO-MW9 JB73631-10F 8/8/2014 GW-FILTERED ug/L	1RND3_ISCO-MW9 ASC_080814 JB73631-19 8/8/2014 GW ug/L	1RND3_IW1-BT2_080714 JB73631-3 8/7/2014 GW ug/L	1RND3_IW1-BT2_080714 JB73631-3F 8/7/2014 GW-FILTERED ug/L	1RND3_MW-10S_080714 JB73631-8 8/7/2014 GW ug/L	1RND3_MW-10S_080714 JB73631-8F 8/7/2014 GW-FILTERED ug/L	1RND3_MW-14SD JB73631-15 8/8/2014 GW ug/L	1RND3_MW-14SD JB73631-15F 8/8/2014 GW-FILTERED ug/L	1RND3_MW-14SS_080814 JB73631-14 8/8/2014 GW-FILTERED ug/L	1RND3_MW-14SS_080814 JB73631-14F 8/8/2014 GW-FILTERED ug/L	1RND3_PZ-1S JB73631-7 8/7/2014 GW ug/L	1RND3_PZ-1S JB73631-7F 8/7/2014 GW-FILTERED ug/L
Volatile Organic Compounds (VOCs)																	
Acetone	6000	-	39.2	-	ND (2.6)	-	ND (2.6)	10.3	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-
Benzene	1	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
Bromochloromethane	-	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-
Bromodichloromethane	1	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Bromoform	4	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-
Bromomethane	10	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-
2-Butanone (MEK)	300	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-
Carbon disulfide	700	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-
Carbon tetrachloride	1	-	0.44	J	-	ND (0.24)	ND (0.24)	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-
Chlorobenzene	50	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-
Chloroethane	-	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-
Chloroform	70	-	1.6	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Chloromethane	-	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-
Cyclohexane	-	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-
1,2-Dibromo-3-chloropropane	0.02	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-
Dibromochloromethane	1	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-
1,2-Dibromoethane	0.03	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-
1,2-Dichlorobenzene	600	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-
1,3-Dichlorobenzene	600	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,4-Dichlorobenzene	75	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-
Dichlorodifluoromethane	1000	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-
1,1-Dichloroethane	50	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-
1,2-Dichloroethane	2	-	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	-	0.54	J	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-
1,1-Dichloroethene	1	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-
cis-1,2-Dichloroethene	70	-	ND (0.33)	-	9.3	-	ND (0.33)	9.6	-	1.6	-	ND (0.33)	-	ND (0.33)	-	0.52	J
trans-1,2-Dichloroethene	100	-	ND (0.51)	-	19.9	-	29.7	1.3	-	10.9	-	13.5	-	11.6	-	ND (0.51)	-
1,2-Dichloropropane	1	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-
cis-1,3-Dichloropropene	-	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
trans-1,3-Dichloropropene	-	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-
1,4-Dioxane	-	-	ND (51)	-	ND (51)	-	ND (51)	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-
Ethylbenzene	700	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-
Freon 113	-	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-
2-Hexanone	-	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-
Isopropylbenzene	700	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
Methyl Acetate	7000	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-
Methylcyclohexane	-	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
Methyl Tert Butyl Ether	70	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
4-Methyl-2-pentanone(MIBK)	-	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-
Methylene chloride	3	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-
Styrene	100	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,1,2,2-Tetrachloroethane	1	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	2.5	-
Tetrachloroethene	1	-	0.65	J	-	1	0.75	0.43	J	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	1.2	-
Toluene	600	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
1,2,3-Trichlorobenzene	-	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,2,4-Trichlorobenzene	9	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
1,1,1-Trichloroethane	30	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-
1,1,2-Trichloroethane	3	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Trichloroethene	1	-	2.9	-	14.7	-	11.3	17.5	-	0.25	J	ND (0.25)	-	ND (0.25)	-	1.4	-
Trichlorofluoromethane	2000	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Vinyl chloride	1	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-
m,p-Xylene	-	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-
o-Xylene	-	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Xylene (total)	1000	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Total VOCs	-	-	44.79	-	44.9	-	41.75	39.13	-	13.29	-	13.5	-	11.6	-	5.62	-
GC/MS Volatile TIC																	
Total TIC, Volatile	-	-	0	-	0	-	0	0	-	0	-	0	-	0	-	0	-
Total Alkanes	-	-	0	-	0	-	0	0	-	0	-	0	-	0	-	0	-
Metals Analysis																	
Chromium	70	299	1950	2020	142	<10	-	871	967	<10	<10	<10	<10	<10	<10	<10	<10
Iron	300	5550	-	928	-	<100	-	-	<100	-	<100	-	<100	-	<100	-	225
Sodium	50000	-	1330000	-	53600	-	-	241000	-	11300	-	145000	-	152000	-	16100	-
General Chemistry																	
Solids, Total Dissolved	500000	-	5460000	-	111000	-	-	1570000	-	122000	-	976000	-	1050000	-	151000	-
Sulfate	250000	-	1420000	-	137000	-	-	527000	-	38800	-	292000	-	315000	-	83300	-

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID Lab Sample ID Sample Date Matrix Unit	NJ CLASS I/A GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	IRND4_FB_09102014 JB76271-11 9/10/2014 WATER ug/L	IRND4_FB_09102014 JB76271-11F 9/10/2014 WATER-FILTERED ug/L	IRND4_FB_09112014 JB76271-21 9/11/2014 WATER ug/L	IRND4_FB_09112014 JB76271-21F 9/11/2014 WATER-FILTERED ug/L	IRND4_TB JB76271-12 9/11/2014 WATER ug/L	IRND4_ISCO-MW1 - JB76271-15 9/11/2014 GW ug/L	IRND4_ISCO-MW1 - JB76271-15F 9/11/2014 GW-FILTERED ug/L	IRND4_ISCO-MW1 ASC - JB76271-24 9/11/2014 GW ug/L	IRND4_ISCO-MW2 JB76271-16 9/11/2014 GW ug/L	IRND4_ISCO-MW2 JB76271-16F 9/11/2014 GW-FILTERED ug/L	IRND4_ISCO-MW2 ASC JB76271-25 9/11/2014 GW ug/L	IRND4_ISCO-MW3 JB76271-17 9/11/2014 GW ug/L	IRND4_ISCO-MW3 JB76271-17F 9/11/2014 GW-FILTERED ug/L	IRND4_ISCO-MW3 ASC JB76271-26 9/11/2014 GW ug/L	IRND4_ISCO-MW4 JB76271-8 9/10/2014 GW ug/L	IRND4_ISCO-MW4 JB76271-8F 9/10/2014 GW-FILTERED ug/L
Volatile Organic Compounds (VOCs)																	
Acetone	6000	ND (2.6)	-	ND (2.6)	-	ND (2.6)	ND (2.6)	-	ND (2.6)	304	-	235	33.8	-	27.5	ND (2.6)	-
Benzene	1	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)	1.7	-	2.3	ND (0.21)	-	ND (0.21)	ND (0.21)	-
Bromochloromethane	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	ND (0.49)	-	ND (0.49)	ND (0.97)	-	ND (0.49)	ND (0.49)	-	ND (0.49)	ND (0.49)	-
Bromodichloromethane	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.56)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.28)	-
Bromoform	4	ND (0.31)	-	ND (0.31)	-	ND (0.31)	ND (0.31)	-	ND (0.31)	ND (0.62)	-	ND (0.31)	ND (0.31)	-	ND (0.31)	ND (0.31)	-
Bromomethane	10	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)	26.7	-	32	ND (0.39)	-	ND (0.39)	ND (0.39)	-
2-Butanone (MEK)	300	ND (2.5)	-	ND (2.5)	-	ND (2.5)	ND (2.5)	-	ND (2.5)	239	-	185	ND (2.5)	-	ND (2.5)	ND (2.5)	-
Carbon disulfide	700	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	20	-	18.6	ND (0.50)	-	ND (0.50)	ND (0.50)	-
Carbon tetrachloride	1	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	-	ND (0.24)	ND (0.47)	-	ND (0.24)	ND (0.24)	-	ND (0.24)	ND (0.24)	-
Chlorobenzene	50	ND (0.27)	-	ND (0.27)	-	ND (0.27)	ND (0.27)	-	ND (0.27)	ND (0.54)	-	ND (0.27)	ND (0.27)	-	ND (0.27)	ND (0.27)	-
Chloroethane	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	ND (0.56)	-	ND (0.56)	ND (1.1)	-	ND (0.56)	ND (0.56)	-	ND (0.56)	ND (0.56)	-
Chloroform	70	1.9	-	3.9	-	ND (0.20)	ND (0.20)	-	ND (0.20)	3.6	-	3.3	ND (0.20)	-	ND (0.20)	0.34	J
Chloromethane	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	-	ND (0.33)	3.4	-	2.8	ND (0.33)	-	ND (0.33)	ND (0.33)	-
Cyclohexane	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	ND (0.37)	-	ND (0.37)	ND (0.74)	-	ND (0.37)	ND (0.37)	-	ND (0.37)	ND (0.37)	-
1,2-Dibromo-3-chloropropane	0.02	ND (1.2)	-	ND (1.2)	-	ND (1.2)	ND (1.2)	-	ND (1.2)	ND (2.3)	-	ND (1.2)	ND (1.2)	-	ND (1.2)	ND (1.2)	-
Dibromochloromethane	1	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	-	ND (0.25)	ND (0.50)	-	ND (0.25)	ND (0.25)	-	ND (0.25)	ND (0.25)	-
1,2-Dibromoethane	0.03	ND (0.23)	-	ND (0.23)	-	ND (0.23)	ND (0.23)	-	ND (0.23)	ND (0.45)	-	ND (0.23)	ND (0.23)	-	ND (0.23)	ND (0.23)	-
1,2-Dichlorobenzene	600	ND (0.16)	-	ND (0.16)	-	ND (0.16)	ND (0.16)	-	ND (0.16)	0.68	J	2.7	ND (0.16)	-	ND (0.16)	ND (0.16)	-
1,3-Dichlorobenzene	600	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.51)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.26)	-
1,4-Dichlorobenzene	75	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	-	ND (0.24)	ND (0.47)	-	0.24	J	ND (0.24)	ND (0.24)	ND (0.24)	-
Dichlorodifluoromethane	1000	ND (0.73)	-	ND (0.73)	-	ND (0.73)	ND (0.73)	-	ND (0.73)	ND (1.5)	-	ND (0.73)	ND (0.73)	-	ND (0.73)	ND (0.73)	-
1,1-Dichloroethane	50	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	ND (0.70)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	ND (0.35)	-
1,2-Dichloroethane	2	ND (0.30)	-	ND (0.30)	-	ND (0.30)	4	-	3.7	574	-	476	ND (0.30)	-	ND (0.30)	0.66	J
1,1-Dichloroethene	1	ND (0.50)	-	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	ND (0.99)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	ND (0.50)	-
cis-1,2-Dichloroethene	70	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	-	ND (0.33)	ND (0.65)	-	ND (0.33)	73.8	-	66.9	ND (0.33)	-
trans-1,2-Dichloroethene	100	ND (0.51)	-	ND (0.51)	-	ND (0.51)	ND (0.51)	-	ND (0.51)	ND (1.0)	-	ND (0.51)	13.4	-	ND (0.51)	ND (0.51)	-
1,2-Dichloropropane	1	ND (0.43)	-	ND (0.43)	-	ND (0.43)	ND (0.43)	-	ND (0.43)	ND (0.87)	-	ND (0.43)	ND (0.43)	-	ND (0.43)	ND (0.43)	-
cis-1,3-Dichloropropene	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.57)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.28)	-
trans-1,3-Dichloropropene	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	ND (0.63)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	ND (0.32)	-
1,4-Dioxane	-	ND (51)	-	ND (51)	-	ND (51)	ND (51)	-	ND (51)	ND (100)	-	ND (51)	ND (51)	-	ND (51)	ND (51)	-
Ethylbenzene	700	ND (0.40)	-	ND (0.40)	-	ND (0.40)	ND (0.40)	-	ND (0.40)	ND (0.79)	-	ND (0.40)	ND (0.40)	-	ND (0.40)	ND (0.40)	-
Freon 113	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	ND (0.89)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	ND (0.45)	-
2-Hexanone	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	ND (1.7)	-	ND (1.7)	ND (3.5)	-	ND (1.7)	ND (1.7)	-	ND (1.7)	ND (1.7)	-
Isopropylbenzene	700	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.51)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.26)	-
Methyl Acetate	7000	ND (3.1)	-	ND (3.1)	-	ND (3.1)	ND (3.1)	-	ND (3.1)	ND (6.2)	-	ND (3.1)	ND (3.1)	-	ND (3.1)	ND (3.1)	-
Methylcyclohexane	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	ND (0.43)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	ND (0.22)	-
Methyl Tert Butyl Ether	70	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.53)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.26)	-
4-Methyl-2-pentanone(MIBK)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	ND (1.1)	-	ND (1.1)	ND (2.1)	-	ND (1.1)	ND (1.1)	-	ND (1.1)	ND (1.1)	-
Methylene chloride	3	ND (0.81)	-	ND (0.81)	-	ND (0.81)	1.6	J	1.4	J	2.4	J	2.3	ND (0.81)	-	2.1	-
Styrene	100	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.51)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.26)	-
1,1,2,2-Tetrachloroethane	1	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)	24.6	-	16.2	ND (0.39)	-	ND (0.39)	ND (0.39)	-
Tetrachloroethene	1	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	3.3	-	1.7	2.4	-	1.7	0.51	J
Toluene	600	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	ND (0.44)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	ND (0.22)	-
1,2,3-Trichlorobenzene	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	ND (0.53)	-	0.68	J	ND (0.26)	ND (0.26)	ND (0.26)	-
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	0.72	J	7.6	ND (0.22)	-	ND (0.22)	ND (0.22)	-
1,1,1-Trichloroethane	30	ND (0.32)	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	ND (0.64)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	ND (0.32)	-
1,1,2-Trichloroethane	3	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.55)	-	0.34	J	ND (0.28)	ND (0.28)	ND (0.28)	-
Trichloroethene	1	ND (0.25)	-	ND (0.25)	-	ND (0.25)	0.48	J	0.34	J	14.6	7.9	87.1	-	68.3	0.95	J
Trichlorofluoromethane	2000	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.56)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.28)	-
Vinyl chloride	1	ND (0.17)	-	ND (0.17)	-	ND (0.17)	ND (0.17)	-	ND (0.17)	ND (0.35)	-	ND (0.17)	ND (0.17)	-	ND (0.17)	ND (0.17)	-
m,p-Xylene	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	ND (0.90)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	ND (0.45)	-
o-Xylene	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	ND (0.40)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	ND (0.20)	-
Xylene (total)	1000	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	ND (0.40)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	ND (0.20)	-
Total VOCs	-	1.9	-	3.9	-	0	6.08	-	5.44	1218.7	-	994.66	210.5	-	164.4	4.56	-
GC/MS Volatile TIC																	
Total TIC, Volatile	-	0	-	0	-	0	8.3	J	6.3	J	11	J	9.9	J	0	-	-
Total Alkanes	-	0	-	0	-	0	0	-	0	0	-	0	0	-	0	-	-
Metals Analysis																	
Chromium	70	<10	<10	<10	<10	-	<10	<10	-	1280	845	-	1730	2090	-	55.6	<10
Iron	300	-	<100	-	<100	-	-	<100	-	-	<100	-	-	<100	-	-	<100
Sodium	50000	<10000	-	<10000	-	-	36400	-	-	1990000	-	-	664000	-	-	13000	-
General Chemistry																	
Solids, Total Dissolved	500000	<10000	-	<10000	-	-	245000	-	-	7120000	-	-	2220000	-	-	137000	-
Sulfate	250000	<10000	-	<10000	-	-	192000	-	-	5280000	-	-	930000	-	-	59900	-

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID	NJ CLASS IIA	IRND4_ISCO-MW5	IRND4_ISCO-MW5	IRND4_ISCO-MW5 ASC	IRND4_ISCO-MW6	IRND4_ISCO-MW6	IRND4_ISCO-MW7	IRND4_ISCO-MW7	IRND4_ISCO-MW8	IRND4_ISCO-MW8	IRND4_ISCO-MW9	IRND4_ISCO-MW9	IRND4_ISCO-MW9 ASC	IRND4_IW1-DR1	IRND4_IW1-DR1	IRND4_IW1-BT2										
Lab Sample ID	GROUNDWATER QUALITY	JB76271-14	JB76271-14F	JB76271-23	JB76271-19	JB76271-19F	JB76271-13	JB76271-13F	JB76271-20	JB76271-20F	JB76271-10	JB76271-10F	JB76271-22	JB76271-7	JB76271-7F	JB76271-18										
Sample Date	CRITERIA (7/22/2010)	9/11/2014	9/11/2014	9/11/2014	9/11/2014	9/11/2014	9/11/2014	9/11/2014	9/10/2014	9/10/2014	9/10/2014	9/10/2014	9/10/2014	9/10/2014	9/10/2014	9/11/2014										
Matrix		GW	GW-FILTERED	GW	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW-FILTERED	GW	GW	GW-FILTERED	GW										
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L										
Volatile Organic Compounds (VOCs)																										
Acetone	6000	ND (2.6)	-	ND (2.6)	ND (2.6)	-	45	-	47.4	-	ND (2.6)	-	9.2	J	ND (2.6)	-	9.5	J								
Benzene	1	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)		ND (0.21)	-	ND (0.21)									
Bromochloromethane	-	ND (0.49)	-	ND (0.49)	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)		ND (0.49)	-	ND (0.49)									
Bromodichloromethane	1	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)		ND (0.28)	-	ND (0.28)									
Bromoform	4	ND (0.31)	-	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)		ND (0.31)	-	ND (0.31)									
Bromomethane	10	ND (0.39)	-	ND (0.39)	ND (0.39)	-	13.7	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)		ND (0.39)	-	ND (0.39)									
2-Butanone (MEK)	300	ND (2.5)	-	ND (2.5)	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)		ND (2.5)	-	ND (2.5)									
Carbon disulfide	700	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)		ND (0.50)	-	ND (0.50)									
Carbon tetrachloride	1	ND (0.24)	-	ND (0.24)	ND (0.24)	-	0.73	J	0.31	J	ND (0.24)	-	ND (0.24)		ND (0.24)	-	ND (0.24)									
Chlorobenzene	50	ND (0.27)	-	ND (0.27)	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)		ND (0.27)	-	ND (0.27)									
Chloroethane	-	ND (0.56)	-	ND (0.56)	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)		ND (0.56)	-	ND (0.56)									
Chloroform	70	ND (0.20)	-	ND (0.20)	ND (0.20)	-	1.1	-	1.1	-	ND (0.20)	-	ND (0.20)		ND (0.20)	-	ND (0.20)									
Chloromethane	-	ND (0.33)	-	ND (0.33)	ND (0.33)	-	2.8	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)		ND (0.33)	-	ND (0.33)									
Cyclohexane	-	ND (0.37)	-	ND (0.37)	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)		ND (0.37)	-	ND (0.37)									
1,2-Dibromo-3-chloropropane	0.02	ND (1.2)	-	ND (1.2)	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)		ND (1.2)	-	ND (1.2)									
Dibromochloromethane	1	ND (0.25)	-	ND (0.25)	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)		ND (0.25)	-	ND (0.25)									
1,2-Dibromoethane	0.03	ND (0.23)	-	ND (0.23)	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)		ND (0.23)	-	ND (0.23)									
1,2-Dichlorobenzene	600	ND (0.16)	-	ND (0.16)	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)		ND (0.16)	-	ND (0.16)									
1,3-Dichlorobenzene	600	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)		ND (0.26)	-	ND (0.26)									
1,4-Dichlorobenzene	75	ND (0.24)	-	ND (0.24)	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)		ND (0.24)	-	ND (0.24)									
Dichlorodifluoromethane	1000	ND (0.73)	-	ND (0.73)	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)		ND (0.73)	-	ND (0.73)									
1,1-Dichloroethane	50	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)		ND (0.35)	-	ND (0.35)									
1,2-Dichloroethane	2	ND (0.30)	-	ND (0.30)	2.4	-	4.6	-	1.7	-	ND (0.30)	-	0.79	J	ND (0.30)	-	ND (0.30)									
1,1-Dichloroethene	1	ND (0.50)	-	ND (0.50)	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)		ND (0.50)	-	ND (0.50)									
cis-1,2-Dichloroethene	70	0.93	J	-	0.84	J	3	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)		ND (0.33)	-	4.8									
trans-1,2-Dichloroethene	100	ND (0.51)	-	ND (0.51)	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)		ND (0.51)	-	0.55	J								
1,2-Dichloropropane	1	ND (0.43)	-	ND (0.43)	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)		ND (0.43)	-	ND (0.43)									
cis-1,3-Dichloropropene	-	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)		ND (0.28)	-	ND (0.28)									
trans-1,3-Dichloropropene	-	ND (0.32)	-	ND (0.32)	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)		ND (0.32)	-	ND (0.32)									
1,4-Dioxane	-	ND (51)	-	ND (51)	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)		ND (51)	-	ND (51)									
Ethylbenzene	700	ND (0.40)	-	ND (0.40)	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)		ND (0.40)	-	ND (0.40)									
Freon 113	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)		ND (0.45)	-	ND (0.45)									
2-Hexanone	-	ND (1.7)	-	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)		ND (1.7)	-	ND (1.7)									
Isopropylbenzene	700	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)		ND (0.26)	-	ND (0.26)									
Methyl Acetate	7000	ND (3.1)	-	ND (3.1)	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)		ND (3.1)	-	ND (3.1)									
Methylcyclohexane	-	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)		ND (0.22)	-	ND (0.22)									
Methyl Tert Butyl Ether	70	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)		ND (0.26)	-	ND (0.26)									
4-Methyl-2-pentanone(MIBK)	-	ND (1.1)	-	ND (1.1)	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)		ND (1.1)	-	ND (1.1)									
Methylene chloride	3	ND (0.81)	-	ND (0.81)	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)		ND (0.81)	-	ND (0.81)									
Styrene	100	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)		ND (0.26)	-	ND (0.26)									
1,1,2,2-Tetrachloroethane	1	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)		ND (0.39)	-	ND (0.39)									
Tetrachloroethene	1	0.45	J	-	0.41	J	ND (0.35)	-	0.63	J	-	1.4	-	1	0.57	J	-	0.42	J							
Toluene	600	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)		ND (0.22)	-	ND (0.22)									
1,2,3-Trichlorobenzene	-	ND (0.26)	-	ND (0.26)	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)		ND (0.26)	-	ND (0.26)									
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	0.47	J	ND (0.22)	-	ND (0.22)									
1,1,1-Trichloroethane	30	0.74	J	-	0.85	J	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)		ND (0.32)	-	ND (0.32)									
1,1,2-Trichloroethane	3	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)		ND (0.28)	-	ND (0.28)									
Trichloroethene	1	4.8	-	-	4.4	-	5.4	-	1.4	-	1.2	-	14.8		13.3	-	12.7									
Trichlorofluoromethane	2000	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)		ND (0.28)	-	ND (0.28)									
Vinyl chloride	1	ND (0.17)	-	ND (0.17)	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)		ND (0.17)	-	ND (0.17)									
m,p-Xylene	-	ND (0.45)	-	ND (0.45)	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)		ND (0.45)	-	ND (0.45)									
o-Xylene	-	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)		ND (0.20)	-	ND (0.20)									
Xylene (total)	1000	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)		ND (0.20)	-	ND (0.20)									
Total VOCs	-	6.92			6.5		10.8		69.96		52.13		16.2		24.76		2.97									
GC/MS Volatile TIC																										
Total TIC, Volatile	-	0	-	0	0	-	24	J	-	0	-	0	-	0	-	0	-	0								
Total Alkanes	-	0	-	0	0	-	0	-	0	-	0	-	0	-	0	-	0									
Metals Analysis																										
Chromium	70	<10		<10	-		<10		816		907		2310		2110		10		<10		<10		611			
Iron	300	-	835	-	-		<100		-		227		1360		-		<100		-		18200		-			
Sodium	50000	18300					92300		1530000		1890000		42500				14500						232000			
General Chemistry																										
Solids, Total Dissolved	500000	118000		-	-		394000		-		6860000		-		460000		-		-		96700		-		1160000	
Sulfate	250000	45100		-	-		211000		-		2720000															

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Post-Injection Groundwater Performance Monitoring Analytical Results
Table 2

Sample ID Lab Sample ID Sample Date Matrix Unit	NJ CLASS IIA GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	IRND4_IWI-BT2 JB76271-18F 9/11/2014 GW-FILTERED ug/L	IRND4_MW-10S JB76271-5 9/10/2014 GW ug/L	IRND4_MW-10S JB76271-5F 9/10/2014 GW-FILTERED ug/L	IRND4_DUP JB76271-6 9/10/2014 GW ug/L	IRND4_DUP JB76271-6F 9/10/2014 GW-FILTERED ug/L	IRND4_MW-14SD JB76271-3 9/10/2014 GW ug/L	IRND4_MW-14SD JB76271-3F 9/10/2014 GW-FILTERED ug/L	IRND4_MW-14SS JB76271-2 9/10/2014 GW ug/L	IRND4_MW-14SS JB76271-2F 9/10/2014 GW-FILTERED ug/L	IRND4_MW-SI JB76271-4 9/10/2014 GW ug/L	IRND4_MW-SI JB76271-4F 9/10/2014 GW-FILTERED ug/L	IRND4_MW11I JB76271-1 9/10/2014 GW ug/L	IRND4_MW11I JB76271-1F 9/10/2014 GW-FILTERED ug/L	IRND4_P2-1S JB76271-9 9/10/2014 GW ug/L	IRND4_P2-1S JB76271-9F 9/10/2014 GW-FILTERED ug/L
Volatile Organic Compounds (VOCs)																
Acetone	6000	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-	ND (2.6)	-
Benzene	1	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
Bromochloromethane	-	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-	ND (0.49)	-
Bromodichloromethane	1	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Bromoform	4	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-
Bromomethane	10	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-
2-Butanone (MEK)	300	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-	ND (2.5)	-
Carbon disulfide	700	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-
Carbon tetrachloride	1	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-
Chlorobenzene	50	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-	ND (0.27)	-
Chloroethane	-	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-
Chloroform	70	-	ND (0.20)	-	ND (0.20)	-	0.29	J	0.27	J	ND (0.20)	-	0.21	J	ND (0.20)	-
Chloromethane	-	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-
Cyclohexane	-	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-	ND (0.37)	-
1,2-Dibromo-3-chloropropane	0.02	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-	ND (1.2)	-
Dibromochloromethane	1	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-
1,2-Dibromoethane	0.03	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-
1,2-Dichlorobenzene	600	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-
1,3-Dichlorobenzene	600	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,4-Dichlorobenzene	75	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	-
Dichlorodifluoromethane	1000	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-	ND (0.73)	-
1,1-Dichloroethane	50	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-
1,2-Dichloroethane	2	-	3.1	-	3	-	ND (0.30)	-	ND (0.30)	-	1.3	-	ND (0.30)	-	5.3	-
1,1-Dichloroethene	1	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-	ND (0.50)	-
cis-1,2-Dichloroethene	70	-	0.76	J	0.92	J	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-
trans-1,2-Dichloroethene	100	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-	ND (0.51)	-
1,2-Dichloropropane	1	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-	ND (0.43)	-
cis-1,3-Dichloropropene	-	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
trans-1,3-Dichloropropene	-	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-
1,4-Dioxane	-	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-	ND (51)	-
Ethylbenzene	700	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-	ND (0.40)	-
Freon 113	-	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-
2-Hexanone	-	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-
Isopropylbenzene	700	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
Methyl Acetate	7000	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-	ND (3.1)	-
Methylcyclohexane	-	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
Methyl Tert Butyl Ether	70	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
4-Methyl-2-pentanone(MIBK)	-	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-	ND (1.1)	-
Methylene chloride	3	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-	ND (0.81)	-
Styrene	100	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,1,2,2-Tetrachloroethane	1	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-
Tetrachloroethene	1	-	1	-	0.91	J	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-
Toluene	600	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
1,2,3-Trichlorobenzene	-	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,2,4-Trichlorobenzene	9	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
1,1,1-Trichloroethane	30	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	ND (0.32)	-	0.6	J	ND (0.32)	-
1,1,2-Trichloroethane	3	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Trichloroethene	1	-	1.5	-	1.5	-	ND (0.25)	-	ND (0.25)	-	0.27	J	ND (0.25)	-	2	-
Trichlorofluoromethane	2000	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Vinyl chloride	1	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-
m,p-Xylene	-	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-	ND (0.45)	-
o-Xylene	-	-	0.27	J	0.31	J	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Xylene (total)	1000	-	0.51	J	0.53	J	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Total VOCs	-	-	6.87		6.86		0.29		0.27		1.57		0.81		7.3	
GC/MS Volatile TIC																
Total TIC, Volatile	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total Alkanes	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metals Analysis																
Chromium	70	<10	24.7	12.2	23.6	11.7	<10	<10	<10	<10	<10	<10	<10	<10	31.6	17.9
Iron	300	<100		<100		<100		<100		<100		<100		<100		146
Sodium	50000	-	43000	-	37800	-	58000	-	61000	-	<10000	-	<10000	-	71300	-
General Chemistry																
Solids, Total Dissolved	500000	-	383000	-	400000	-	376000	-	416000	-	253000	-	131000	-	475000	-
Sulfate	250000	-	171000	-	176000	-	101000	-	117000	-	68300	-	63800	-	101000	-

Notes:
ND, < Not Detected Above Detection Limits
- Not Sampled
Bolded value indicates a detect above detection limits
Red bolded value indicates a detection that exceeds regulatory criteria

Evor Phillips Leasing Company (EPLC) Superfund Site
Old Bridge, New Jersey
Groundwater Elevations
Table 3

				1st Post Round 1 5/14/2014		2nd Post Round 1 6/30/2014		3rd Post Round 1 8/7/2014		4th Post Round 1 9/10/2014	
Well ID	Easting	Northing	Inner	Depth to	Ground	Depth to	Ground	Depth to	Ground	Depth to	Ground
			Casing Elevation (ft amsl)	Water (ft toc)	Water Elevation (ft amsl)	Water (ft toc)	Water Elevation (ft amsl)	Water (ft toc)	Water Elevation (ft amsl)	Water (ft toc)	Water Elevation (ft amsl)
ISCO MW-1	540638.00	584218.00	46.23	18.43	27.80	19.72	26.51	20.11	26.12	20.82	25.41
ISCO MW-2	540795.00	584320.00	48.92	19.99	28.93	20.68	28.24	21.09	27.83	21.52	27.40
ISCO MW-3	540912.00	584387.00	51.28	22.47	28.81	23.47	27.81	23.91	27.37	24.77	26.51
ISCO MW-4	540918.00	584326.00	44.67	15.90	28.77	16.98	27.69	17.43	27.24	18.12	26.55
ISCO MW-5	540698.00	584250.00	47.81	19.98	27.83	21.23	26.58	21.63	26.18	22.32	25.49
ISCO MW-6	540785.00	584303.00	48.78	20.51	28.27	21.69	27.09	22.10	26.68	22.79	25.99
ISCO MW-7	540871.00	584335.00	46.3	17.47	28.83	18.35	27.95	18.72	27.58	19.33	26.97
ISCO MW-8	540879.00	584360.00	50.19	21.38	28.81	22.31	27.88	22.75	27.44	23.37	26.82
ISCO MW-9	541020.00	584422.00	48.79	19.78	29.01	20.83	27.96	21.28	27.51	21.95	26.84
IW1-BT-2	540925.16	584418.94	52.39	23.45	28.94	24.47	27.92	24.92	27.47	25.76	26.63
MW-14S	540781.83	584184.87	32.03	4.08	27.95	5.32	26.71	5.65	26.38	6.40	25.63
MW-10S	540619.21	584165.36	45.27	17.47	27.80	18.83	26.44	19.23	26.04	19.93	25.34
PZ-1S	540551.93	584158.57	44.24	16.51	27.73	17.91	26.33	18.20	26.04	19.03	25.21
MW-5I	540691.57	584309.75	49.74	NM	--	NM	--	NM	--	23.93	25.81
IW1-DR-1	540926.52	584458.57	57.46	NM	--	NM	--	NM	--	30.57	26.89
MW-11I	540543.75	584212.88	47.92	NM	--	NM	--	NM	--	22.58	25.34

Figures

I:\Evor-Phillips\1972651308.Evor-Phillips\Docs\Reports\Review of Phase I Post-Injection Monitoring Report\Figures1-USGS MAP.mxd
PLOTDATE: 11/19/14 1:58:30 PM kaufmadr



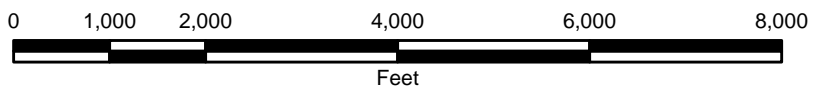
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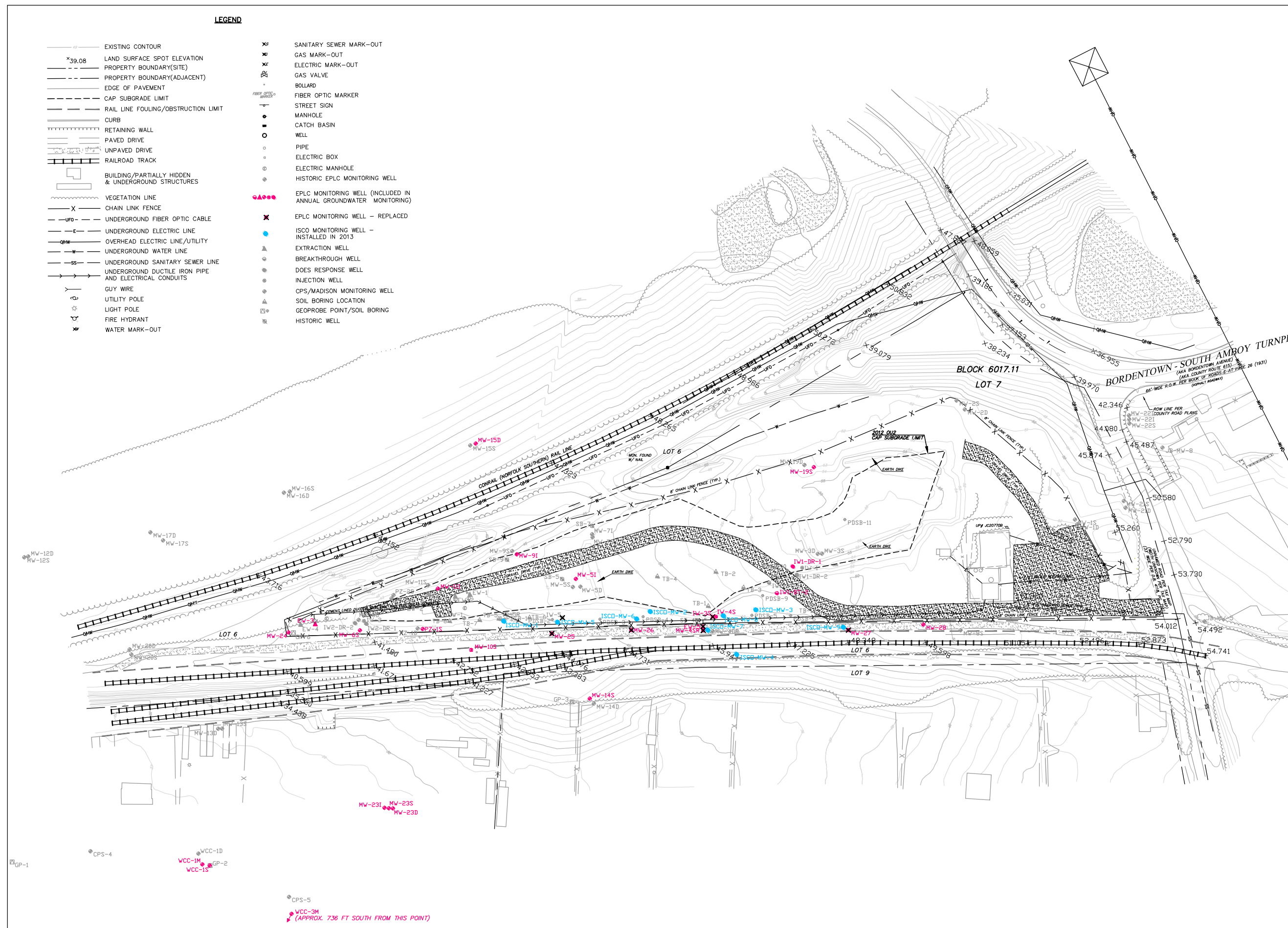
EVOR PHILLIPS LEASING COMPANY SUPERFUND SITE OLD BRIDGE, NEW JERSEY



MAP LOCATION

SITE LOCATION





1. RAIL LINE FOULING/OBSTRUCTION LIMITS ARE 15' FROM CENTERLINE OF RAIL IN EACH DIRECTION.
2. HORIZONTAL DATUM NAD 1983, VERTICAL DATUM NAVD 1988.
3. EXISTING GRADE ELEVATIONS AND LOCATIONS WERE OBTAINED BY MASER CONSULTING, PA ON AUGUST 10, 2012 & JANUARY 14, 2013.
4. WELL WCC-3M IS LOCATED DOWNGRADIENT ON THE CPS/MADISON SITE.

EVOR PHILLIPS LEASING
COMPANY SUPERFUND SITE
OLD BRIDGE, NEW JERSEY

SITE PLAN WITH WELL LOCATIONS



FILE NO. 19726.51308-FIG2
NOVEMBER 2014

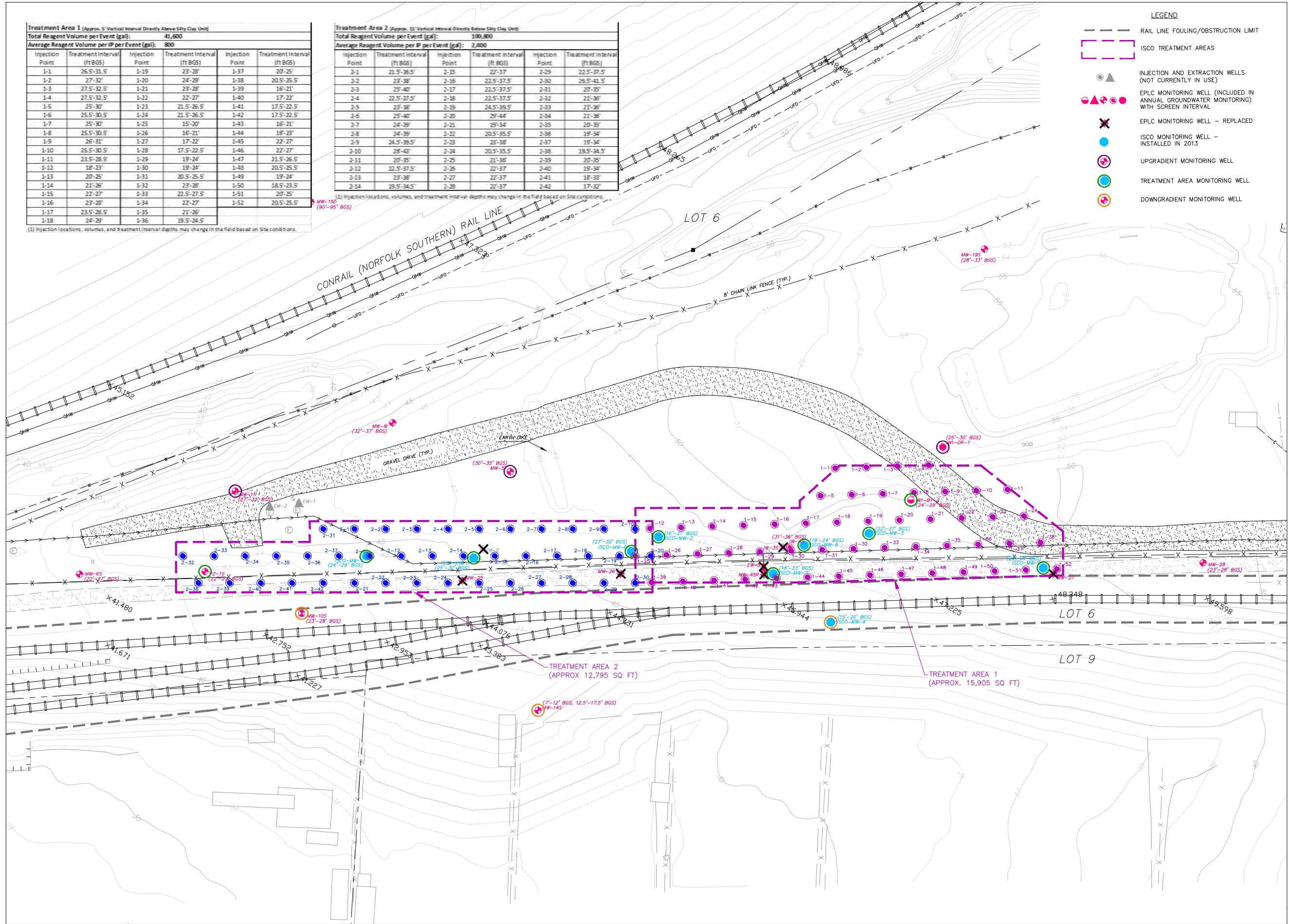


FIGURE 3

- NOTES:
1. RAIL LINE FOULING/OBSTRUCTION LIMITS ARE 15' FROM CENTERLINE OF RAIL IN EACH DIRECTION.
 2. HORIZONTAL DATUM NAD 1983, VERTICAL DATUM NAVD 1988.
 3. EXISTING GRADE ELEVATIONS AND LOCATIONS WERE OBTAINED BY MASER CONSULTING, PA ON AUGUST 10, 2012 & JANUARY 14, 2013.
 4. THE FOLLOWING MONITORING WELLS AND DEPTHS SHOWN WERE USED FOR PERFORMANCE MONITORING: TREATMENT AREA WELLS (ISCO-MW-1, ISCO-MW-2, ISCO-MW-3, ISCO-MW-5, ISCO-MW-6, ISCO-MW-7, ISCO-MW-8, ISCO-MW-9, AND IW1-BT-2); DOWNGRADIENT WELLS (ISCO-MW-4, MW-10S, AND MW-14S); AND UPGRADIENT WELLS (IW1-DR-1, MW-5I, AND MW-11I).

EVOR PHILLIPS LEASING
COMPANY SUPERFUND SITE
OLD BRIDGE, NEW JERSEY

ISCO LAYOUT &
MONITORING PLAN

1"=60'

FILE NO. 19726.51308-FIG3
NOVEMBER 2014

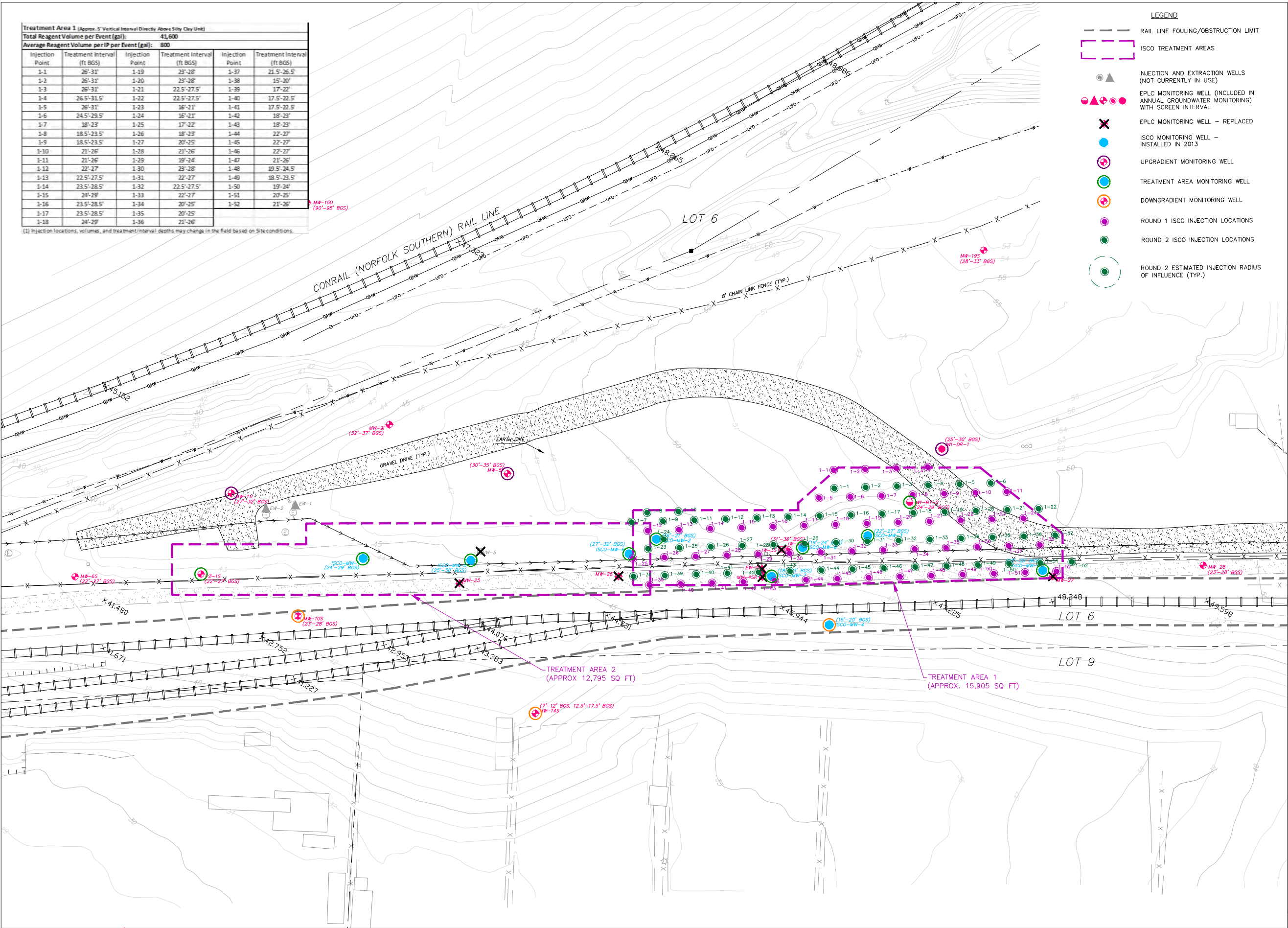


FIGURE 5



- NOTES:
1. RAIL LINE FOULING/OBSTRUCTION LIMITS ARE 15' FROM CENTERLINE OF RAIL IN EACH DIRECTION.
 2. HORIZONTAL DATUM NAD 1983, VERTICAL DATUM NAVD 1988.
 3. EXISTING GRADE ELEVATIONS AND LOCATIONS WERE OBTAINED BY MASER CONSULTING, PA ON AUGUST 10, 2012 & JANUARY 14, 2013.

EVOR PHILLIPS LEASING
COMPANY SUPERFUND SITE
OLD BRIDGE, NEW JERSEY

PROPOSED ROUND 2
ISCO LAYOUT

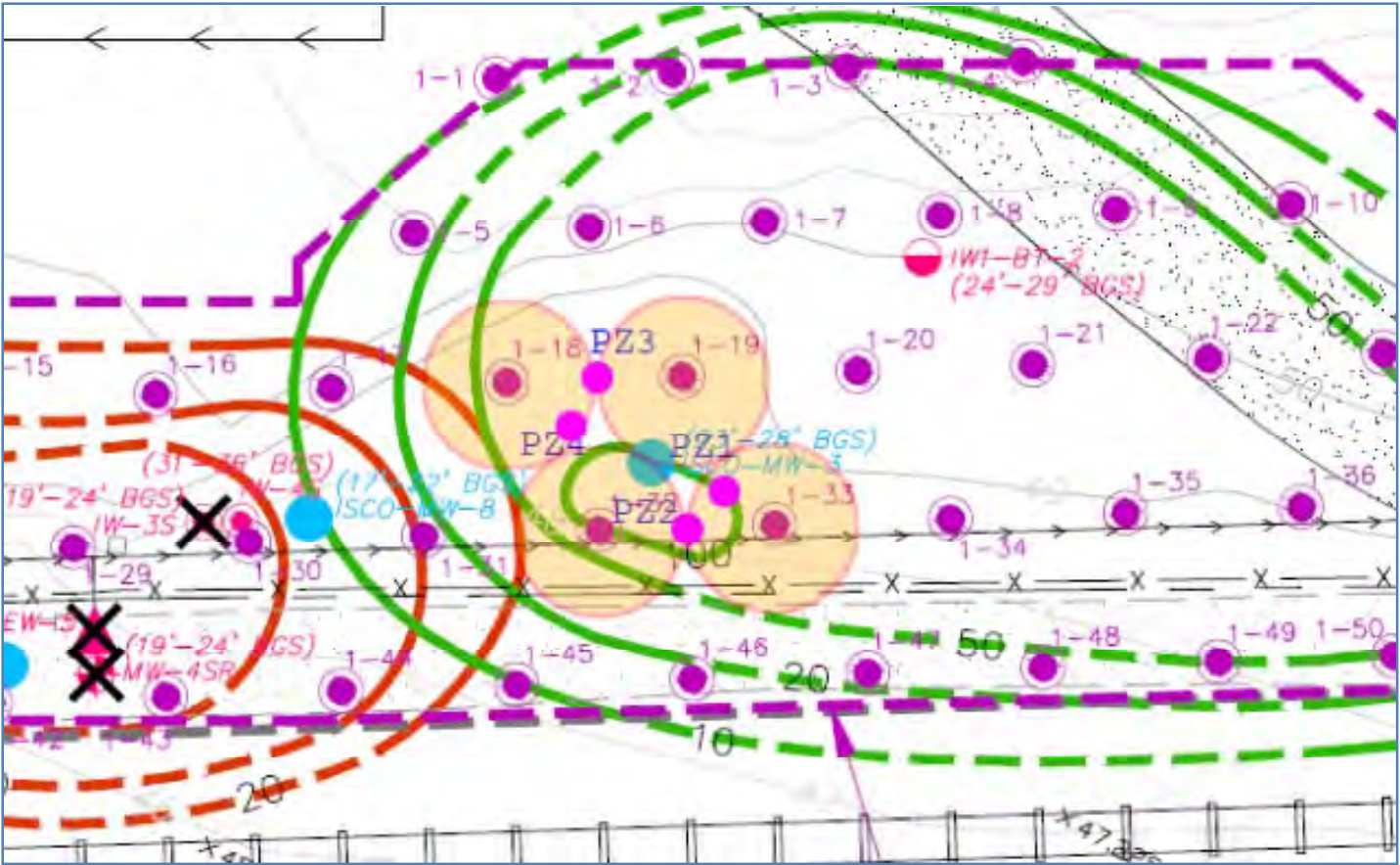
1"=60'

FILE NO. 19726.51308-FIG5
NOVEMBER 2014



Attachments

*Attachment 1:
Treatment Area 1
Verification Testing Layout
& Results*



Monitoring and Injection Point Screen Depth Intervals

Location ID	1-18	1-19	1-32	1-33	PZ-1	PZ-2	PZ-3	PZ-4	MW-3
Depth BGS	24-29	23-28	23-28	22.5-27.5	23-28	23-28	23-28	23-28	22-27

Distances Between Injection and Monitoring Point Locations

Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance
PZ-1	1-33	7' 10"	PZ-2	1-33	9' 11"	MW-3	1-18	20' 7"
	1-32	15' 4"		1-32	9' 9"		1-19	10' 4"
PZ-3	1-18	9' 9"	PZ-4	1-18	6' 3"		1-32	13' 11"
	1-19	9' 4"		1-19	13' 5"		1-33	13' 7"

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 1 (Test 1)
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
MW-3	2/25/2014	2/25/14 10:00	10:00 AM	544	102	5.91	368	10.6	6.23	0.0	24.15
MW-3	2/27/2014	2/27/14 12:05	12:05 PM	561	75	5.83	380	12.7	3.90	0.0	23.63
MW-3	2/27/2014	2/27/14 12:43	12:43 PM	560	70	5.90	379	12.6	5.52	0.0	23.43
MW-3	2/27/2014	2/27/14 13:07	1:07 PM	559	41	5.96	377	12.4	7.05	0.0	23.20
MW-3	2/27/2014	2/27/14 13:30	1:30 PM	569	36	6.02	384	12.2	6.87	0.0	23.00
MW-3	2/27/2014	2/27/14 14:19	2:19 PM	573	42	5.90	387	12.5	5.14	0.0	23.30
MW-3	2/27/2014	2/27/14 14:57	2:57 PM	579	37	5.99	391	11.6	6.41	0.0	22.55
MW-3	2/27/2014	2/27/14 15:45	3:45 PM	585	40	5.88	398	11.0	5.98	0.0	23.77
MW-3	2/27/2014	2/27/14 16:45	4:45 PM	614	51	5.96	418	11.4	7.92	0.0	22.30
MW-3	2/27/2014	2/27/14 17:23	5:23 PM	616	43	6.39	419	10.6	4.82	0.0	23.36
MW-3	2/28/2014	2/28/14 8:00	8:00 AM	598	80	5.82	408	9.2	6.85	0.0	24.11
MW-3	2/28/2014	2/28/14 14:10	2:10 PM	566	64	5.83	380	9.5	5.20	0.0	24.11
MW-3	2/28/2014	2/28/14 17:40	5:40 PM	683	70	5.76	465	11.3	5.09	0.0	24.10
MW-3	3/1/2014	3/1/14 8:00	8:00 AM	575	84	5.74	391	8.5	4.21	0.0	24.10
MW-3	3/3/2014	3/3/14 8:45	8:45 AM	5251	355	8.14	4108	9.4	2.59	800.0	24.11
MW-3	3/4/2014	3/4/14 8:05	8:05 AM	10000	224	12.57	10000	8.2	6.68	1750.0	24.17
MW-3	3/4/2014	3/4/14 15:40	3:40 PM	5677	277	10.01	4430	13.4	6.88	1225.0	23.91
MW-3	3/5/2014	3/5/14 8:40	8:40 AM	5697	216	10.82	4448	13.3	3.39	1225.0	23.79
MW-3	3/6/2014	3/6/14 8:15	8:15 AM	10000	177	12.74	10000	11.3	4.10	3150.0	24.03
MW-3	3/7/2014	3/7/14 7:30	7:30 AM	10000	190	12.61	9536	9.6	4.03	1050.0	23.78
MW-3	3/8/2014	3/8/14 8:30	8:30 AM	4202	195	10.80	3213	10.3	4.25	1275.0	24.08
MW-3	3/10/2014	3/10/14 9:00	8:30 AM	4191	173	10.70	3177	13.4	4.32	1275.0	24.11
MW-3	3/11/2014	3/11/14 8:45	8:45 AM	4346	97	10.89	3303	13.5	3.78	750.0	23.91
MW-3	3/17/2014	3/17/14 14:35	2:35 PM	2344	284	8.89	1693	11.7	3.87	425.0	23.91
MW-3	3/21/2014	3/21/14 11:45	11:45 AM	10000	150	12.84	10000	12.5	7.47	2100.0	NA
MW-3	3/25/2014	3/25/14 9:50	9:50 AM	10000	250	13.11	10000	10.8	9.86	5250.0	NA
MW-3	3/28/2014	3/28/14 8:40	8:40 AM	10000	182	12.80	10000	13.2	5.58	5250.0	NA
MW-3	4/1/2014	4/1/14 8:00	8:00 AM	10000	210	12.97	10000	11.1	6.92	5250.0	NA
PZ-1	2/26/2014	2/26/14 13:00	1:00 PM	708	-58	6.02	481	12.8	4.97	0.0	23.30
PZ-1	2/27/2014	2/27/14 12:05	12:05 PM	604	-87	6.17	411	12.0	5.38	0.0	22.45
PZ-1	2/27/2014	2/27/14 12:43	12:43 PM	585	-72	6.18	397	12.8	4.27	0.0	22.29
PZ-1	2/27/2014	2/27/14 13:07	1:07 PM	575	-94	6.10	389	11.7	3.71	0.0	22.15
PZ-1	2/27/2014	2/27/14 13:30	1:30 PM	580	-101	6.11	393	11.8	3.82	0.0	21.88
PZ-1	2/27/2014	2/27/14 14:19	2:19 PM	565	-73	6.07	381	11.8	4.52	0.0	22.10
PZ-1	2/27/2014	2/27/14 14:57	2:57 PM	564	-46	6.07	382	11.4	5.40	0.0	21.40
PZ-1	2/27/2014	2/27/14 15:45	3:45 PM	563	-4	6.14	382	9.8	5.40	0.0	22.79
PZ-1	2/27/2014	2/27/14 16:45	4:45 PM	549	-14	6.10	372	11.9	5.54	0.0	21.16
PZ-1	2/27/2014	2/27/14 17:23	5:23 PM	556	-34	6.32	385	9.1	6.62	0.0	22.40
PZ-1	2/28/2014	2/28/14 8:00	8:00 AM	538	-116	5.95	366	9.4	3.89	3.0	23.05
PZ-1	2/28/2014	2/28/14 14:10	2:10 PM	595	-65	5.91	403	9.5	5.37	3.0	23.10
PZ-1	2/28/2014	2/28/14 17:40	5:40 PM	9306	118	11.37	7685	9.7	5.26	3000.0	23.10
PZ-1	3/1/2014	3/1/14 8:00	8:00 AM	6621	103	11.52	5295	8.6	5.35	1050.0	23.10
PZ-1	3/3/2014	3/3/14 8:45	8:45 AM	5028	97	10.97	3932	6.9	6.24	1275.0	23.10
PZ-1	3/4/2014	3/4/14 8:05	8:05 AM	5386	219	11.72	4239	7.4	8.45	525.0	23.15
PZ-2	2/26/2014	2/26/14 13:00	1:00 PM	661	-28	6.20	449	12.5	4.80	0.0	23.60
PZ-2	2/27/2014	2/27/14 12:05	12:05 PM	707	-82	6.24	482	11.0	5.01	0.0	22.85
PZ-2	2/27/2014	2/27/14 12:43	12:43 PM	700	-88	6.26	476	12.1	4.49	0.0	22.69
PZ-2	2/27/2014	2/27/14 13:07	1:07 PM	693	-152	6.19	471	12.0	3.21	0.0	22.50
PZ-2	2/27/2014	2/27/14 13:30	1:30 PM	690	-91	6.24	469	11.6	5.11	0.0	22.30
PZ-2	2/27/2014	2/27/14 14:19	2:19 PM	681	-112	6.14	463	12.1	3.55	0.0	22.44
PZ-2	2/27/2014	2/27/14 14:57	2:57 PM	680	-35	6.16	462	12.1	6.87	0.0	21.85
PZ-2	2/27/2014	2/27/14 15:45	3:45 PM	677	-22	6.23	461	10.6	7.39	0.0	23.12
PZ-2	2/27/2014	2/27/14 16:45	4:45 PM	681	-109	6.08	463	11.2	3.65	0.0	21.65
PZ-2	2/27/2014	2/27/14 17:23	5:23 PM	685	-112	6.22	466	9.1	5.20	0.0	22.83
PZ-2	2/28/2014	2/28/14 8:00	8:00 AM	695	6	5.96	474	9.1	7.13	0.0	23.40
PZ-2	2/28/2014	2/28/14 14:10	2:10 PM	735	-55	5.82	499	9.5	5.09	0.0	23.40
PZ-2	2/28/2014	2/28/14 17:40	5:40 PM	1065	88	6.35	747	8.6	4.22	105.0	23.40
PZ-2	3/1/2014	3/1/14 8:00	8:00 AM	9441	126	11.71	7805	8.5	3.88	1875.0	23.45
PZ-2	3/3/2014	3/3/14 8:45	8:45 AM	1875	-40	6.90	1337	9.6	3.44	450.0	23.42
PZ-2	3/4/2014	3/4/14 8:05	8:05 AM	1124	-9	6.95	784	8.9	4.25	175.0	23.50

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 1 (Test 1)
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
PZ-3	2/26/2014	2/26/14 13:00	1:00 PM	848	-43	5.92	583	12.3	6.54	0.0	23.30
PZ-3	2/27/2014	2/27/14 12:05	12:05 PM	882	-66	6.15	609	11.3	4.98	0.0	22.50
PZ-3	2/27/2014	2/27/14 12:43	12:43 PM	884	-101	6.09	609	12.6	2.79	0.0	22.35
PZ-3	2/27/2014	2/27/14 13:07	1:07 PM	880	-117	6.07	606	12.1	3.52	0.0	22.07
PZ-3	2/27/2014	2/27/14 13:30	1:30 PM	877	-8	6.26	605	10.2	8.27	0.0	21.90
PZ-3	2/27/2014	2/27/14 14:19	2:19 PM	912	-57	5.90	629	12.7	4.17	0.0	22.03
PZ-3	2/27/2014	2/27/14 14:57	2:57 PM	925	-38	5.91	639	12.5	5.99	0.0	21.45
PZ-3	2/27/2014	2/27/14 15:45	3:45 PM	952	-31	5.94	658	11.7	4.91	0.0	22.80
PZ-3	2/27/2014	2/27/14 16:45	4:45 PM	984	-12	5.98	685	10.1	7.08	0.0	21.15
PZ-3	2/27/2014	2/27/14 17:23	5:23 PM	1046	-23	6.06	732	9.8	7.27	0.0	24.49
PZ-3	2/28/2014	2/28/14 8:00	8:00 AM	8777	129	11.91	7215	9.2	3.00	1050.0	23.10
PZ-3	2/28/2014	2/28/14 14:10	2:10 PM	2321	-77	9.31	1676	9.5	4.92	450.0	23.10
PZ-3	2/28/2014	2/28/14 17:40	5:40 PM	10000	198	12.24	10000	10.5	3.71	2625.0	23.10
PZ-3	3/1/2014	3/1/14 8:00	8:00 AM	2467	-27	9.47	1810	8.8	4.40	425.0	23.10
PZ-3	3/3/2014	3/3/14 8:45	8:45 AM	1386	-92	6.63	979	10.5	2.89	85.0	23.10
PZ-3	3/4/2014	3/4/14 8:05	8:05 AM	1285	49	6.56	908	8.5	6.54	70.0	23.15
PZ-4	2/26/2014	2/26/14 13:00	1:00 PM	1402	-62	6.33	972	12.7	5.96	0.0	23.25
PZ-4	2/27/2014	2/27/14 12:05	12:05 PM	1508	-70	6.40	1066	11.4	5.09	0.0	22.40
PZ-4	2/27/2014	2/27/14 12:43	12:43 PM	2013	-118	6.28	1440	12.6	2.54	0.0	22.50
PZ-4	2/27/2014	2/27/14 13:07	1:07 PM	2589	-6	6.37	1893	12.5	3.46	0.0	21.88
PZ-4	2/27/2014	2/27/14 13:30	1:30 PM	2057	-72	6.32	1471	12.1	3.57	0.0	21.70
PZ-4	2/27/2014	2/27/14 14:19	2:19 PM	2545	57	6.74	1860	12.5	3.75	35.0	21.85
PZ-4	2/27/2014	2/27/14 14:57	2:57 PM	5524	180	11.43	4316	12.2	5.89	525.0	21.24
PZ-4	2/27/2014	2/27/14 15:45	3:45 PM	10000	253	12.08	10000	11.6	6.28	2000.0	22.76
PZ-4	2/27/2014	2/27/14 16:45	4:45 PM	10000	308	12.66	10000	11.5	3.16	2100.0	20.86
PZ-4	2/27/2014	2/27/14 17:23	5:23 PM	10000	271	12.54	10000	10.4	5.97	5250.0	22.46
PZ-4	2/28/2014	2/28/14 8:00	8:00 AM	10000	189	12.37	10000	9.3	4.76	3675.0	23.02
PZ-4	2/28/2014	2/28/14 14:10	2:10 PM	10000	201	12.26	10000	9.5	4.54	3675.0	23.07
PZ-4	2/28/2014	2/28/14 17:40	5:40 PM	10000	269	12.39	10000	9.6	4.21	5250.0	23.07
PZ-4	3/1/2014	3/1/14 8:00	8:00 AM	10000	98	12.08	10000	8.8	4.57	2250.0	23.10
PZ-4	3/3/2014	3/3/14 8:45	8:45 AM	2688	-141	9.65	1986	9.1	4.25	750.0	23.07
PZ-4	3/4/2014	3/4/14 8:05	8:05 AM	2049	50	7.48	1474	7.6	5.94	375.0	23.10

Notes:

ft bgs = feet below ground surface

uS = micro siemens

mV = milli volts

mg/l = milligrams per liter

C = degree Celsius

NA = not analyzed

DTW = Depth to water

Conductivity and TDS values represented as 10,000 indicate value greater than that number (above the measurement capability of the testing instrument).

DO = Dissolved oxygen

TDS = Total dissolved solids

ORP = Redox Potential

Cond = Conductivity

Persulfate concentrations represented as 5,250 mg/l indicate concentration greater than that number as this was the highest dilution factor utilized when determining persulfate concentration.

*Attachment 2:
Treatment Area 1
Injection Summary &
Process Monitoring Results*

Treatment Area 1 Injection Data Summary
Evor Phillips Leasing Company Superfund Site
Operable Unit 3 (OU3)
Old Bridge, New Jersey
ISOTEC #801870



Date Completed	Injection Point ID	Screen Interval (ft bgs)	Persulfate Concentration (g/L)	Base to Persulfate Molar Ratio	BASP Injection Time (mins)	BASP Volume (gal)	BASP Flow Rate (gpm)	Sodium Persulfate (lbs)	Sodium Hydroxide (lbs)	Maximum Well Head Pressure (psi)
27-Feb-14	1-18	24'-29'	75	~4.52:1	133	525.0	3.95	330	1002.7	0-2
27-Feb-14	1-19	23'-28'	75	~4.52:1	129	525.0	4.07	330	1002.7	0-2
27-Feb-14	1-32	23'-28'	75	~4.52:1	134	525.0	3.92	330	1002.7	0-2
27-Feb-14	1-33	22.5'-27.5'	75	~4.52:1	139	525.0	3.78	330	1002.7	0-2
27-Feb-14	1-18	24'-29'	75	~4.52:1	53	262.5	4.95	165	501.4	0-2
27-Feb-14	1-19	23'-28'	75	~4.52:1	53	262.5	4.95	165	501.4	0-2
27-Feb-14	1-32	23'-28'	75	~4.52:1	53	262.5	4.95	165	501.4	0-2
27-Feb-14	1-33	22.5'-27.5'	75	~4.52:1	53	262.5	4.95	165	501.4	0-2
27-Feb-14	1-18 ¹	24'-29'	0	~4.52:1	43	262.5	6.10	0	501.4	0-2
27-Feb-14	1-19 ¹	23'-28'	0	~4.52:1	43	262.5	6.10	0	501.4	0-2
27-Feb-14	1-32 ¹	23'-28'	0	~4.52:1	43	262.5	6.10	0	501.4	0-2
27-Feb-14	1-33 ¹	22.5'-27.5'	0	~4.52:1	43	262.5	6.10	0	501.4	0-2
27-Feb-14	1-9 ²	26'-31'	75	~4.52:1	51	262.5	5.15	165	501.4	0-2
4-Mar-14	1-1	26.5'-31.5'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-2
4-Mar-14	1-3	27.5'-32.5'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-2
4-Mar-14	1-9	26'-31'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-2
4-Mar-14	1-11	23.5'-28.5'	50	~4.52:1	121	800.0	6.61	330	1014.2	0-2
4-Mar-14	1-20	24'-29'	50	~4.52:1	129	800.0	6.20	330	1014.2	0-2
4-Mar-14	1-22	22'-27'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-2
4-Mar-14	1-35	21'-26'	50	~4.52:1	137	800.0	5.84	330	1014.2	0-2
4-Mar-14	1-37	20'-25'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-2
4-Mar-14	1-48	20.5'-25.5'	50	~4.52:1	129	800.0	6.20	330	1014.2	0-2
4-Mar-14	1-50	18.5'-23.5'	50	~4.52:1	134	800.0	5.97	330	1014.2	0-2
5-Mar-14	1-15	22'-27'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-15
5-Mar-14	1-17	23.5'-28.5'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-10
5-Mar-14	1-24	21.5'-26.5'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-5
5-Mar-14	1-29	19'-24'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-10
5-Mar-14	1-31	20.5'-25.5'	50	~4.52:1	124	800.0	6.45	330	1014.2	0-15
5-Mar-14	1-34	22'-27'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-5
5-Mar-14	1-42	17.5'-22.5'	50	~4.52:1	126	800.0	6.35	330	1014.2	0-20
5-Mar-14	1-44	18'-23'	50	~4.52:1	124	800.0	6.45	330	1014.2	0-20
5-Mar-14	1-46	22'-27'	50	~4.52:1	124	800.0	6.45	330	1014.2	0-10
5-Mar-14	1-52	20.5'-25.5'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-25
6-Mar-14	1-2	27'-32'	50	~4.52:1	121	800.0	6.61	330	1014.2	0-10
6-Mar-14	1-10	25.5'-30.5'	50	~4.52:1	136	800.0	5.88	330	1014.2	0-16
6-Mar-14	1-12	18'-23'	50	~4.52:1	120	800.0	6.67	330	1014.2	0-25
6-Mar-14	1-14	21'-26'	50	~4.52:1	138	800.0	5.80	330	1014.2	0-10
6-Mar-14	1-27	17'-22'	50	~4.52:1	121	800.0	6.61	330	1014.2	0-20
6-Mar-14	1-30	19'-24'	50	~4.52:1	124	800.0	6.45	330	1014.2	0-10
6-Mar-14	1-36	19.5'-24.5'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-20
6-Mar-14	1-38	20.5'-25.5'	50	~4.52:1	124	800.0	6.45	330	1014.2	0-20
6-Mar-14	1-40	17'-22'	50	~4.52:1	126	800.0	6.35	330	1014.2	0-12
6-Mar-14	1-43	16'-21'	50	~4.52:1	129	800.0	6.20	330	1014.2	0-25
10-Mar-14	1-04	27.5'-32.5'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-20
10-Mar-14	1-08	25.5'-30.5'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-14
10-Mar-14	1-16	23'-28'	50	~4.52:1	132	800.0	6.06	330	1014.2	0-18
10-Mar-14	1-21	23'-28'	50	~4.52:1	133	800.0	6.02	330	1014.2	0-10
10-Mar-14	1-23	21.5'-26.5'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-14
10-Mar-14	1-28	17.5'-22.5'	50	~4.52:1	135	800.0	5.93	330	1014.2	0-18
10-Mar-14	1-45	22'-27'	50	~4.52:1	129	800.0	6.20	330	1014.2	0-28
10-Mar-14	1-47	21.5'-26.5'	50	~4.52:1	126	800.0	6.35	330	1014.2	0-12
10-Mar-14	1-49	19'-24'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-24
10-Mar-14	1-51	20'-25'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-24
11-Mar-14	1-39	16'-21'	50	~4.52:1	161	800.0	4.97	330	1014.2	0-15

Treatment Area 1 Injection Data Summary
 Evor Phillips Leasing Company Superfund Site
 Operable Unit 3 (OU3)
 Old Bridge, New Jersey
 ISOTEC #801870



Date Completed	Injection Point ID	Screen Interval (ft bgs)	Persulfate Concentration (g/L)	Base to Persulfate Molar Ratio	BASP Injection Time (mins)	BASP Volume (gal)	BASP Flow Rate (gpm)	Sodium Persulfate (lbs)	Sodium Hydroxide (lbs)	Maximum Well Head Pressure (psi)
11-Mar-14	1-41	17.5'-22.5'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-10
12-Mar-14	1-13	20'-25'	50	~4.52:1	121	800.0	6.61	330	1014.2	0-25
12-Mar-14	1-25	15'-20'	50	~4.52:1	119	800.0	6.72	330	1014.2	0-10
12-Mar-14	1-26	16'-21'	50	~4.52:1	118	800.0	6.78	330	1014.2	0-10
14-Mar-14	1-5	25'-30'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-2
14-Mar-14	1-6	25.5'-30.5'	50	~4.52:1	138	800.0	5.80	330	1014.2	0-2
14-Mar-14	1-7	25'-30'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-10
Totals						42862.5	5.99	17985.0	57206.4	

Notes:

BASP = Base activated sodium persulfate solution.

g/L = Grams per liter.

Mins = Minutes.

Gal = Gallons.

GPM = Gallons per minute.

lbs = Pounds.

PSI = Pounds per square inch.

FT BGS = Feet below ground surface.

1. NaOH & water mix, no persulfate added (to increase pore volume distribution without increasing oxidant dosage).
2. The extra BASP volume remaining following injection verification testing in Treatment Area 1 was injected in 1-9, as this IP had already been installed in preparation for full-scale injections at this location.

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 1
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
MW-2	2/25/2014	2/25/14 10:00	10:00 AM	558	240	5.25	381	9.5	6.67	0.0	21.40
MW-2	3/4/2014	3/4/14 8:45	8:45 AM	574	223	5.43	389	11.0	6.65	0.0	21.41
MW-2	3/5/2014	3/5/14 8:40	8:40 AM	560	171	5.38	379	12.8	4.20	0.0	21.41
MW-2	3/6/2014	3/6/14 8:15	8:15 AM	399	238	5.27	268	10.2	4.04	0.0	21.61
MW-2	3/6/2014	3/6/14 15:15	3:15 PM	1082	458	5.93	754	12.0	8.66	450.0	20.56
MW-2	3/7/2014	3/7/14 7:30	7:30 AM	6904	272	10.38	5519	10.0	4.77	3675.0	21.56
MW-2	3/8/2014	3/8/14 8:30	8:30 AM	10000	151	11.81	9498	11.3	4.28	5250.0	21.70
MW-2	3/10/2014	3/10/14 9:00	8:30 AM	9533	142	10.54	7836	14.2	4.07	3375.0	17.59
MW-2	3/11/2014	3/11/14 8:45	8:45 AM	8764	112	10.22	7146	11.7	6.45	4500.0	21.28
MW-2	3/17/2014	3/17/14 14:35	2:35 PM	4665	142	7.31	3584	12.3	4.01	1425.0	21.18
MW-2	3/21/2014	3/21/14 11:45	11:45 AM	NA	NA	6.90	NA	NA	NA	2100.0	NA
MW-2	3/25/2014	3/25/14 9:50	9:50 AM	8207	371	7.19	6698	9.4	11.15	2100.0	NA
MW-2	3/28/2014	3/28/14 8:40	8:40 AM	10000	287	6.99	9034	11.2	8.46	3000.0	NA
MW-2	4/1/2014	4/1/14 8:00	8:00 AM	5597	209	10.03	4395	11.2	7.45	900.0	NA
MW-3	2/25/2014	2/25/14 10:00	10:00 AM	544	102	5.91	368	10.6	6.23	0.0	24.20
MW-3	2/27/2014	2/27/14 12:05	12:05 PM	561	75	5.83	380	12.7	3.90	0.0	23.63
MW-3	2/27/2014	2/27/14 12:43	12:43 PM	560	70	5.90	379	12.6	5.52	0.0	23.43
MW-3	2/27/2014	2/27/14 13:07	1:07 PM	559	41	5.96	377	12.4	7.05	0.0	23.20
MW-3	2/27/2014	2/27/14 13:30	1:30 PM	569	36	6.02	384	12.2	6.87	0.0	23.00
MW-3	2/27/2014	2/27/14 14:19	2:19 PM	573	42	5.90	387	12.5	5.14	0.0	23.30
MW-3	2/27/2014	2/27/14 14:57	2:57 PM	579	37	5.99	391	11.6	6.41	0.0	22.55
MW-3	2/27/2014	2/27/14 15:45	3:45 PM	585	40	5.88	398	11.0	5.98	0.0	23.77
MW-3	2/27/2014	2/27/14 16:45	4:45 PM	614	51	5.96	418	11.4	7.92	0.0	22.30
MW-3	2/27/2014	2/27/14 17:23	5:23 PM	616	43	6.39	419	10.6	4.82	0.0	23.36
MW-3	2/28/2014	2/28/14 8:00	8:00 AM	598	80	5.82	408	9.2	6.85	0.0	24.11
MW-3	2/28/2014	2/28/14 14:10	2:10 PM	566	64	5.83	380	9.5	5.20	0.0	24.11
MW-3	2/28/2014	2/28/14 17:40	5:40 PM	683	70	5.76	465	11.3	5.09	0.0	24.10
MW-3	3/1/2014	3/1/14 8:00	8:00 AM	575	84	5.74	391	8.5	4.21	0.0	24.10
MW-3	3/3/2014	3/3/14 8:45	8:45 AM	5251	355	8.14	4108	9.4	2.59	800.0	24.11
MW-3	3/4/2014	3/4/14 8:05	8:05 AM	10000	224	12.57	10000	8.2	6.68	1750.0	24.17
MW-3	3/4/2014	3/4/14 15:40	3:40 PM	5677	277	10.01	4430	13.4	6.88	1225.0	23.91
MW-3	3/5/2014	3/5/14 8:40	8:40 AM	5697	216	10.82	4448	13.3	3.39	1225.0	23.79
MW-3	3/6/2014	3/6/14 8:15	8:15 AM	10000	177	12.74	10000	11.3	4.10	3150.0	24.03
MW-3	3/7/2014	3/7/14 7:30	7:30 AM	10000	190	12.61	9536	9.6	4.03	1050.0	23.78
MW-3	3/8/2014	3/8/14 8:30	8:30 AM	4202	195	10.80	3213	10.3	4.25	1275.0	24.08
MW-3	3/10/2014	3/10/14 9:00	8:30 AM	4191	173	10.70	3177	13.4	4.32	1275.0	24.11
MW-3	3/11/2014	3/11/14 8:45	8:45 AM	4346	97	10.89	3303	13.5	3.78	750.0	23.91
MW-3	3/17/2014	3/17/14 14:35	2:35 PM	2344	284	8.89	1693	11.7	3.87	425.0	23.91
MW-3	3/21/2014	3/21/14 11:45	11:45 AM	10000	150	12.84	10000	12.5	7.47	2100.0	NA
MW-3	3/25/2014	3/25/14 9:50	9:50 AM	10000	250	13.11	10000	10.8	9.86	5250.0	NA
MW-3	3/28/2014	3/28/14 8:40	8:40 AM	10000	182	12.80	10000	13.2	5.58	5250.0	NA
MW-3	4/1/2014	4/1/14 8:00	8:00 AM	10000	210	12.97	10000	11.1	6.92	5250.0	NA
MW-4	2/25/2014	2/25/14 10:00	10:00 AM	132	308	5.09	85	11.5	9.06	0.0	17.20
MW-4	3/4/2014	3/4/14 8:45	8:45 AM	115	288	4.95	74	8.4	10.33	0.0	17.23
MW-4	3/5/2014	3/5/14 8:40	8:40 AM	119	296	7.73	76	12.4	8.42	0.0	17.22
MW-4	3/6/2014	3/6/14 8:15	8:15 AM	118	333	6.77	76	7.7	9.23	0.0	17.27
MW-4	3/7/2014	3/7/14 7:30	7:30 AM	119	342	5.11	76	10.5	10.74	0.0	17.24
MW-4	3/10/2014	3/10/14 9:00	8:30 AM	133	240	5.47	85	12.9	7.40	0.0	21.42
MW-4	3/11/2014	3/11/14 8:45	8:45 AM	142	190	5.49	92	12.6	7.29	6.0	17.12
MW-4	3/17/2014	3/17/14 14:35	2:35 PM	117	347	5.71	75	10.7	9.47	0.0	17.25
MW-4	3/21/2014	3/21/14 11:45	11:45 AM	NA	NA	4.77	NA	NA	NA	0.0	NA
MW-4	3/25/2014	3/25/14 9:50	9:50 AM	168	456	7.28	109	8.3	11.92	0.0	NA
MW-4	3/28/2014	3/28/14 8:40	8:40 AM	118	284	7.87	75	10.8	8.49	0.0	NA
MW-4	4/1/2014	4/1/14 8:00	8:00 AM	116	294	5.41	74	12.1	9.16	0.0	NA

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 1
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
MW-7	2/25/2014	2/25/14 10:00	10:00 AM	125	295	4.96	79	12.4	7.36	0.0	18.70
MW-7	3/4/2014	3/4/14 8:45	8:45 AM	146	289	5.31	94	8.4	7.65	0.0	18.70
MW-7	3/5/2014	3/5/14 8:40	8:40 AM	144	305	5.54	91	13.4	5.58	0.0	18.63
MW-7	3/5/2014	3/5/14 14:16	2:16 PM	137	242	5.31	87	14.1	6.35	0.0	17.96
MW-7	3/6/2014	3/6/14 8:15	8:15 AM	127	342	5.43	82	8.7	7.35	0.0	18.78
MW-7	3/6/2014	3/6/14 15:15	3:15 PM	10000	222	13.15	10000	10.3	6.39	5250.0	17.78
MW-7	3/7/2014	3/7/14 7:30	7:30 AM	10000	243	13.21	10000	10.3	2.68	5250.0	18.44
MW-7	3/8/2014	3/8/14 8:30	8:30 AM	10000	200	13.03	10000	12.6	3.02	5250.0	18.60
MW-7	3/10/2014	3/10/14 9:00	8:30 AM	10000	140	12.78	10000	13.1	5.93	5250.0	18.72
MW-7	3/11/2014	3/11/14 8:45	8:45 AM	10000	126	12.96	10000	12.1	5.45	5250.0	18.38
MW-7	3/17/2014	3/17/14 14:35	2:35 PM	10000	72	12.53	10000	12.4	3.77	3150.0	18.50
MW-7	3/21/2014	3/21/14 11:45	11:45 AM	10000	99	12.71	10000	12.5	7.47	2100.0	NA
MW-7	3/25/2014	3/25/14 9:50	9:50 AM	10000	201	12.97	10000	10.8	6.67	2100.0	NA
MW-7	3/28/2014	3/28/14 8:40	8:40 AM	10000	182	12.60	10000	12.3	6.62	2625.0	NA
MW-7	4/1/2014	4/1/14 8:00	8:00 AM	10000	146	12.57	10000	12.7	7.77	1875.0	NA
MW-8	2/25/2014	2/25/14 10:00	10:00 AM	2237	118	8.99	1617	11.3	6.65	0.0	23.00
MW-8	3/4/2014	3/4/14 8:45	8:45 AM	1028	225	7.22	718	10.2	6.44	0.0	23.03
MW-8	3/4/2014	3/4/14 15:40	3:40 PM	1341	260	9.21	937	13.8	7.49	0.0	22.95
MW-8	3/5/2014	3/5/14 8:40	8:40 AM	1057	240	7.75	733	13.3	4.38	0.0	22.70
MW-8	3/5/2014	3/5/14 14:16	2:16 PM	1668	177	9.68	1174	14.6	6.10	0.0	21.98
MW-8	3/6/2014	3/6/14 8:15	8:15 AM	949	311	6.71	659	10.2	5.60	0.0	22.83
MW-8	3/6/2014	3/6/14 15:15	3:15 PM	934	302	7.16	647	11.7	6.03	0.0	22.54
MW-8	3/7/2014	3/7/14 7:30	7:30 AM	1392	263	9.35	983	9.9	4.90	175.0	22.80
MW-8	3/8/2014	3/8/14 8:30	8:30 AM	8892	163	12.52	7294	11.2	4.03	3000.0	22.90
MW-8	3/10/2014	3/10/14 9:00	8:30 AM	10000	183	12.83	10000	14.4	3.13	5250.0	22.91
MW-8	3/11/2014	3/11/14 8:45	8:45 AM	10000	164	12.87	10000	13.3	3.57	5250.0	22.76
MW-8	3/17/2014	3/17/14 14:35	2:35 PM	10000	110	12.79	10000	12.0	5.46	5250.0	22.94
MW-8	3/21/2014	3/21/14 11:45	11:45 AM	10000	175	12.93	10000	14.3	6.77	5250.0	NA
MW-8	3/25/2014	3/25/14 9:50	9:50 AM	10000	234	13.34	10000	11.4	4.92	5250.0	NA
MW-8	3/28/2014	3/28/14 8:40	8:40 AM	10000	211	13.05	10000	13.0	5.83	5250.0	NA
MW-8	4/1/2014	4/1/14 8:00	8:00 AM	10000	218	12.93	10000	10.7	6.77	5250.0	NA
MW-9	2/25/2014	2/25/14 10:00	10:00 AM	141	254	6.16	90	11.5	7.88	0.0	21.20
MW-9	3/4/2014	3/4/14 8:45	8:45 AM	178	127	6.36	115	9.0	6.48	0.0	21.21
MW-9	3/5/2014	3/5/14 8:40	8:40 AM	148	186	5.96	94	13.7	6.04	0.0	21.25
MW-9	3/5/2014	3/5/14 14:16	2:16 PM	176	217	5.89	112	14.4	5.57	0.0	20.19
MW-9	3/6/2014	3/6/14 8:15	8:15 AM	166	3	5.91	107	11.4	6.40	0.0	21.25
MW-9	3/6/2014	3/6/14 15:15	3:15 PM	203	270	6.11	131	11.4	6.02	0.0	21.23
MW-9	3/7/2014	3/7/14 7:30	7:30 AM	226	248	6.34	147	11.9	4.93	0.0	21.75
MW-9	3/8/2014	3/8/14 8:30	8:30 AM	263	278	6.66	171	11.1	6.34	0.0	21.65
MW-9	3/9/2014	3/9/14 8:30	8:30 AM	74	344	6.27	47	11.6	6.41	0.0	21.64
MW-9	3/10/2014	3/10/14 9:00	8:30 AM	209	201	6.88	135	13.3	4.13	85.0	21.31
MW-9	3/10/2014	3/10/14 14:00	2:00 PM	815	41	6.35	442	14.7	2.08	70.0	20.78
MW-9	3/11/2014	3/11/14 8:45	8:45 AM	233	253	6.78	150	13.5	6.78	70.0	21.14
MW-9	3/17/2014	3/17/14 14:35	2:35 PM	954	278	7.38	658	13.0	6.18	140.0	21.42
MW-9	3/21/2014	3/21/14 11:45	11:45 AM	1204	191	10.34	838	12.7	8.68	350.0	NA
MW-9	3/25/2014	3/25/14 9:50	9:50 AM	2924	235	11.75	2152	10.9	11.36	525.0	NA
MW-9	3/28/2014	3/28/14 8:40	8:40 AM	1618	252	9.65	1144	13.2	6.31	245.0	NA
MW-9	4/1/2014	4/1/14 8:00	8:00 AM	1178	154	11.04	824	13.4	7.32	190.0	NA

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 1
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
IW1-DR-1	2/25/2014	2/25/14 10:00	10:00 AM	589	37	6.08	402	8.2	6.71	0.0	30.30
IW1-DR-1	3/4/2014	3/4/14 8:45	8:45 AM	298	-78	5.64	196	8.9	6.08	0.0	30.25
IW1-DR-1	3/5/2014	3/5/14 8:40	8:40 AM	417	-25	5.87	280	12.0	5.84	0.0	30.20
IW1-DR-1	3/6/2014	3/6/14 8:15	8:15 AM	543	126	6.00	369	9.6	6.27	0.0	30.30
IW1-DR-1	3/7/2014	3/7/14 7:30	7:30 AM	458	118	5.89	311	9.5	6.18	0.0	30.25
IW1-DR-1	3/10/2014	3/10/14 9:00	8:30 AM	330	-42	5.59	217	12.9	6.17	0.0	30.25
IW1-DR-1	3/11/2014	3/11/14 8:45	8:45 AM	610	72	6.05	414	13.4	5.62	0.0	30.15
IW1-DR-1	3/17/2014	3/17/14 14:35	2:35 PM	329	-23	5.89	218	11.5	7.49	0.0	29.98
IW1-DR-1	3/21/2014	3/21/14 11:45	11:45 AM	NA	NA	5.91	NA	NA	NA	0.0	NA
IW1-BT-2	2/25/2014	2/25/14 10:00	10:00 AM	470	228	4.91	318	9.3	7.10	0.0	25.30
IW1-BT-2	3/4/2014	3/4/14 8:45	8:45 AM	488	117	5.69	331	10.9	3.39	0.0	25.30
IW1-BT-2	3/4/2014	3/4/14 15:40	3:40 PM	569	149	5.81	384	13.9	5.29	0.0	24.98
IW1-BT-2	3/5/2014	3/5/14 8:40	8:40 AM	669	97	6.03	455	12.8	4.67	0.0	25.20
IW1-BT-2	3/5/2014	3/5/14 14:16	2:16 PM	698	115	6.07	471	14.6	6.76	0.0	25.11
IW1-BT-2	3/6/2014	3/6/14 8:15	8:15 AM	729	98	6.10	498	10.7	3.77	0.0	25.35
IW1-BT-2	3/7/2014	3/7/14 7:30	7:30 AM	710	83	6.12	484	8.8	4.23	0.0	24.92
IW1-BT-2	3/8/2014	3/8/14 8:30	8:30 AM	699	81	5.98	473	11.0	6.04	0.0	25.22
IW1-BT-2	3/9/2014	3/9/14 8:30	8:30 AM	687	79	6.11	466	11.8	4.19	0.0	25.30
IW1-BT-2	3/10/2014	3/10/14 9:00	8:30 AM	652	34	6.10	443	12.7	4.14	0.0	25.21
IW1-BT-2	3/10/2014	3/10/14 14:00	2:00 PM	653	-16	6.35	442	14.7	2.08	0.0	24.95
IW1-BT-2	3/11/2014	3/11/14 8:45	8:45 AM	782	19	6.25	534	12.7	3.81	0.0	25.15
IW1-BT-2	3/17/2014	3/17/14 14:35	2:35 PM	737	-4	6.37	501	11.7	5.65	0.0	24.46
IW1-BT-2	3/21/2014	3/21/14 11:45	11:45 AM	10000	-3	12.58	10000	13.5	10.23	900.0	NA

Notes:

ft bgs = feet below ground surface

uS = micro siemens

mV = milli volts

mg/l = milligrams per liter

C = degree Celsius

NA = not analyzed

DTW = Depth to water

Conductivity and TDS values represented as 10,000 indicate value greater than that number (above the measurement capability of the testing instrument).

DO = Dissolved oxygen

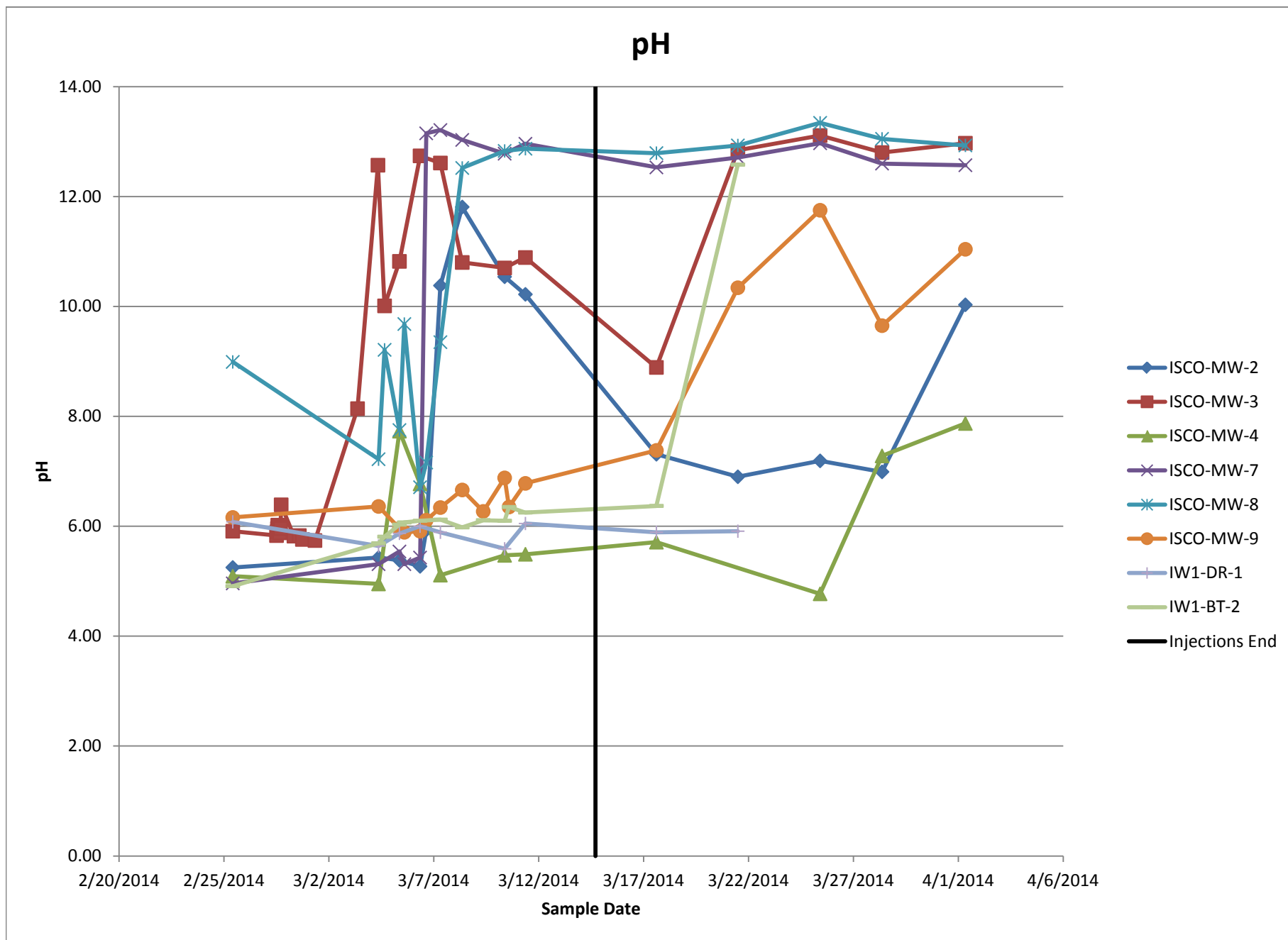
TDS = Total dissolved solids

ORP = Redox Potential

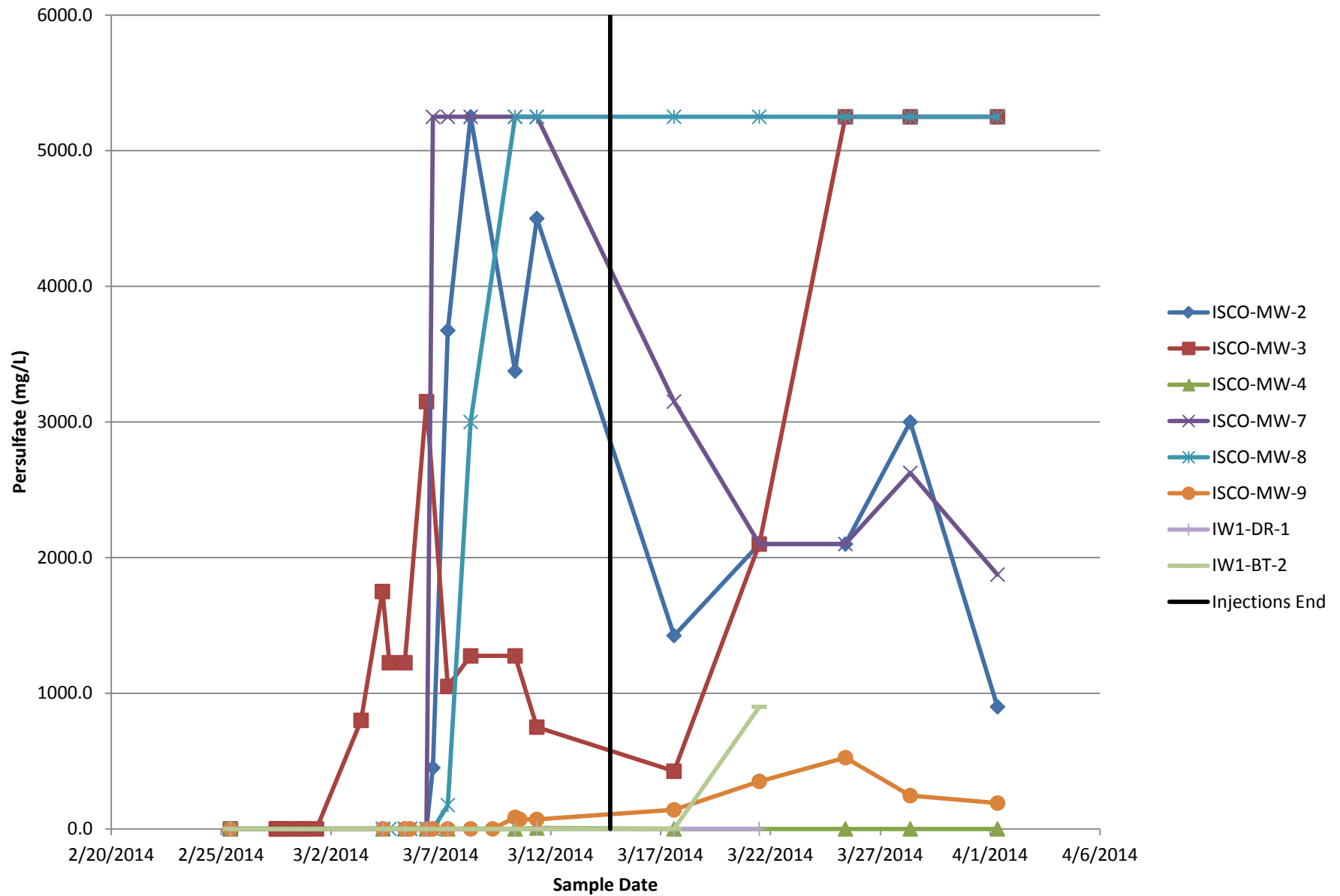
Cond = Conductivity

Persulfate concentrations represented as 5,250 mg/l

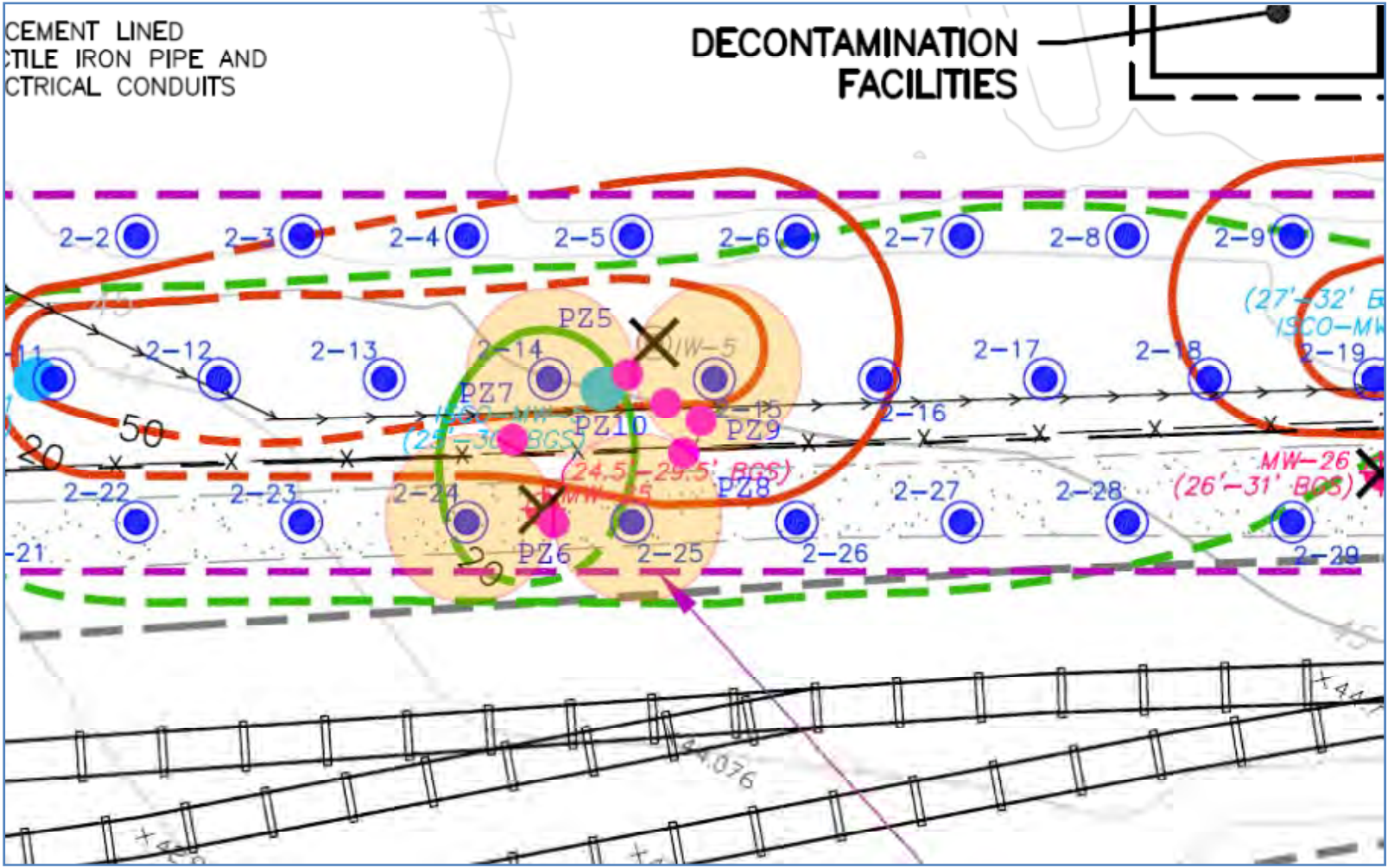
indicate concentration greater than that number as this was the highest dilution factor utilized when determining persulfate concentration.



Persulfate



*Attachment 3:
Treatment Area 2
First Verification Testing
Layout & Results*



Monitoring and Injection Point Screen Depth Intervals

Location ID	2-14	2-15	2-24	2-25	PZ-5	PZ-6	PZ-7	PZ-8	MW-5
Depth BGS	24.5-29.5	27-32	25.5-30.5	26-31	24-32	24-32	24-32	24-32	24.5-29.5

Distances Between Injection and Monitoring Point Locations

Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance
PZ-5	2-14	10' 0"	PZ-6	2-24	9' 10"	MW-5	2-14	6' 9"
	2-15	9' 6"		2-25	10' 2"		2-15	13' 9"
PZ-7	2-14	9' 0"	PZ-8	2-15	8' 9"		2-24	23' 0"
	2-24	10' 10"		2-25	11' 0"		2-25	16' 3"

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Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
MW-5	3/7/2014	3/7/14 11:17	11:17 AM	334	218	5.87	222	11.4	7.81	0.0	21.45
MW-5	3/7/2014	3/7/14 13:20	1:20 PM	351	187	5.90	233	13.9	10.28	0.0	20.90
MW-5	3/7/2014	3/7/14 14:00	2:00 PM	390	157	5.98	260	11.5	10.56	0.0	20.85
MW-5	3/7/2014	3/7/14 14:40	2:40 PM	434	92	5.61	293	12.1	5.17	0.0	20.85
MW-5	3/7/2014	3/7/14 15:05	3:05 PM	464	119	5.47	313	12.6	5.50	0.0	20.76
MW-5	3/7/2014	3/7/14 16:15	4:15 PM	453	146	5.40	307	11.7	6.36	0.0	21.26
MW-5	3/8/2014	3/8/14 8:30	8:30 AM	442	137	5.72	298	11.6	3.94	0.0	21.67
MW-5	3/9/2014	3/9/14 8:30	8:30 AM	440	138	5.71	296	11.8	2.07	0.0	21.66
MW-5	3/10/2014	3/10/14 9:00	9:00 AM	452	140	5.55	302	15.5	4.02	0.0	21.67
MW-5	3/10/2014	3/10/14 13:45	1:45 PM	436	139	5.27	293	13.8	4.33	0.0	21.58
MW-5	3/11/2014	3/11/14 8:00	8:00 AM	444	150	5.55	300	12.8	4.07	0.0	21.60
MW-5	3/11/2014	3/11/14 12:00	12:00 PM	445	137	5.54	300	14.8	5.13	0.0	21.11
MW-5	3/11/2014	3/11/14 15:00	3:00 PM	455	120	5.59	305	16.9	2.71	0.0	20.95
MW-5	3/11/2014	3/11/14 17:12	5:12 PM	464	151	5.46	309	16.8	3.77	0.0	21.05
MW-5	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	5.62	NA	NA	NA	0.0	21.56
MW-5	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	5.68	NA	NA	NA	0.0	NA
MW-5 ¹	3/14/2014	3/14/14 12:30	12:30 PM	NA	NA	5.83	NA	NA	NA	0.0	NA
MW-5	3/14/2014	3/14/14 15:30	3:30 PM	NA	NA	5.91	NA	NA	NA	0.0	NA
MW-5	3/18/2014	3/18/14 10:45	10:45 AM	408	121	5.73	274	12.1	6.85	0.0	21.52
MW-5	3/20/2014	3/20/14 9:00	9:00 AM	422	125	5.87	282	15.8	8.80	0.0	NA
MW-5	3/21/2014	3/21/14 9:00	9:00 AM	NA	NA	6.15	NA	NA	NA	0.0	NA
MW-5	3/24/2014	3/24/14 11:50	11:50 AM	338	54	7.34	225	10.8	7.44	0.0	NA
MW-5	3/25/2014	3/25/14 9:50	9:50 AM	326	55	7.51	215	11.1	6.53	0.0	NA
MW-5	3/26/2014	3/26/14 14:20	2:20 PM	388	55	7.04	259	12.2	8.60	0.0	NA
MW-5	3/27/2014	3/27/14 13:21	1:21 PM	507	17	7.32	344	12.5	6.46	0.0	NA
MW-5	3/28/2014	3/28/14 8:40	8:40 AM	1201	288	6.51	842	11.6	7.07	0.0	NA
MW-5	3/31/2014	3/28/14 12:15	12:15 PM	1624	239	6.34	1142	14.1	6.88	700.0	NA
MW-5	4/1/2014	4/1/14 8:00	8:00 AM	1505	237	7.48	1064	12.4	4.46	450.0	NA
PZ-5	3/7/2014	3/7/14 11:17	11:17 AM	456	-198	5.72	308	11.3	5.61	0.0	21.30
PZ-5	3/7/2014	3/7/14 13:20	1:20 PM	445	-87	5.68	299	12.6	4.05	0.0	20.50
PZ-5	3/7/2014	3/7/14 14:00	2:00 PM	427	-58	5.71	288	11.1	3.42	0.0	20.44
PZ-5	3/7/2014	3/7/14 14:40	2:40 PM	393	-83	5.60	264	11.0	4.24	0.0	20.41
PZ-5	3/7/2014	3/7/14 15:05	3:05 PM	391	-85	5.57	262	11.6	3.81	0.0	20.37
PZ-5	3/7/2014	3/7/14 16:15	4:15 PM	386	-67	5.56	259	10.3	5.34	0.0	21.12
PZ-5	3/8/2014	3/8/14 8:30	8:30 AM	438	-147	5.73	295	11.8	8.02	0.0	21.20
PZ-5	3/9/2014	3/9/14 8:30	8:30 AM	443	-160	5.87	298	12.1	4.02	0.0	21.21
PZ-5	3/10/2014	3/10/14 9:00	9:00 AM	437	-26	5.69	293	14.3	5.44	0.0	21.21
PZ-5	3/10/2014	3/10/14 13:45	1:45 PM	389	-2	5.70	260	13.1	4.61	0.0	21.15
PZ-5	3/11/2014	3/11/14 8:00	8:00 AM	392	-5	5.57	263	12.6	4.24	0.0	21.15
PZ-5	3/11/2014	3/11/14 12:00	12:00 PM	335	2	5.42	220	14.6	3.20	0.0	20.71
PZ-5	3/11/2014	3/11/14 15:00	3:00 PM	328	49	5.42	215	16.6	5.27	0.0	21.01
PZ-5	3/11/2014	3/11/14 17:12	5:12 PM	341	13	5.48	225	16.4	3.48	0.0	20.87
PZ-5	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	5.46	NA	NA	NA	0.0	21.15
PZ-5	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	5.74	NA	NA	NA	0.0	NA
PZ-5 ¹	3/14/2014	3/14/14 12:30	12:30 PM	NA	NA	5.84	NA	NA	NA	0.0	NA
PZ-5	3/14/2014	3/14/14 17:30	5:30 PM	NA	NA	5.86	NA	NA	NA	0.0	NA
PZ-5	3/18/2014	3/18/14 10:45	10:45 AM	1078	234	5.65	752	11.6	6.35	350.0	NA
PZ-5	3/20/2014	3/20/14 9:00	9:00 AM	1738	110	9.58	1227	14.8	6.67	525.0	NA
PZ-5	3/21/2014	3/21/14 9:00	9:00 AM	2464	198	11.14	1793	13.0	5.98	525.0	NA
PZ-5	3/24/2014	3/24/14 11:50	11:50 AM	2569	225	9.89	1880	11.8	6.13	525.0	NA
PZ-6	3/7/2014	3/7/14 11:17	11:17 AM	425	-99	5.16	286	12.2	3.64	0.0	19.45
PZ-6	3/7/2014	3/7/14 13:20	1:20 PM	296	-14	5.47	296	12.3	3.31	0.0	18.60
PZ-6	3/7/2014	3/7/14 14:00	2:00 PM	434	31	5.23	293	11.3	2.92	0.0	18.58
PZ-6	3/7/2014	3/7/14 14:40	2:40 PM	422	25	5.19	285	11.2	3.42	0.0	18.55
PZ-6	3/7/2014	3/7/14 15:05	3:05 PM	431	25	5.20	292	11.5	2.99	0.0	18.49
PZ-6	3/7/2014	3/7/14 16:15	4:15 PM	427	106	5.11	280	9.8	4.71	0.0	19.10
PZ-6	3/8/2014	3/8/14 8:30	8:30 AM	367	121	4.85	244	11.9	4.38	0.0	19.50
PZ-6	3/9/2014	3/9/14 8:30	8:30 AM	376	17	4.91	250	12.4	4.14	0.0	19.48
PZ-6	3/10/2014	3/10/14 9:00	9:00 AM	399	148	4.93	266	14.8	4.33	0.0	19.22
PZ-6	3/10/2014	3/10/14 13:45	1:45 PM	425	169	4.96	286	13.3	3.80	0.0	19.19
PZ-6	3/11/2014	3/11/14 8:00	8:00 AM	419	182	4.94	281	13.1	4.03	0.0	19.20
PZ-6	3/11/2014	3/11/14 12:00	12:00 PM	416	175	5.00	277	15.1	3.58	0.0	18.73
PZ-6	3/11/2014	3/11/14 15:00	3:00 PM	410	201	4.92	273	16.5	4.52	0.0	18.95
PZ-6	3/11/2014	3/11/14 17:12	5:12 PM	374	199	4.69	247	14.9	3.34	0.0	18.86
PZ-6	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	4.80	NA	NA	NA	0.0	19.15
PZ-6	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	4.80	NA	NA	NA	0.0	NA
PZ-6 ¹	3/14/2014	3/14/14 12:30	12:30 PM	NA	NA	4.81	NA	NA	NA	0.0	NA
PZ-6	3/14/2014	3/14/14 17:30	5:30 PM	NA	NA	4.95	NA	NA	NA	0.0	NA
PZ-6	3/18/2014	3/18/14 10:45	10:45 AM	426	382	4.85	287	12.5	4.79	0.0	NA
PZ-6	3/20/2014	3/20/14 9:00	9:00 AM	413	355	4.86	276	14.8	9.36	0.0	NA
PZ-6	3/24/2014	3/24/14 11:50	11:50 AM	NA	NA	6.26	NA	NA	NA	0.0	NA

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Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
PZ-7	3/7/2014	3/7/14 11:17	11:17 AM	372	-172	5.82	248	10.6	2.77	0.0	21.45
PZ-7	3/7/2014	3/7/14 13:20	1:20 PM	388	-124	5.83	259	12.1	3.01	0.0	20.65
PZ-7	3/7/2014	3/7/14 14:00	2:00 PM	376	-105	5.78	251	11.7	3.32	0.0	20.60
PZ-7	3/7/2014	3/7/14 14:40	2:40 PM	365	-137	5.67	243	11.8	2.97	0.0	20.59
PZ-7	3/7/2014	3/7/14 15:05	3:05 PM	357	-132	5.68	238	11.8	3.17	0.0	20.55
PZ-7	3/7/2014	3/7/14 16:15	4:15 PM	362	-111	5.75	241	10.5	3.80	0.0	21.20
PZ-7	3/8/2014	3/8/14 8:30	8:30 AM	416	-102	4.98	280	11.2	3.87	0.0	21.33
PZ-7	3/9/2014	3/9/14 8:30	8:30 AM	448	-104	5.47	303	12.6	3.96	0.0	21.34
PZ-7	3/10/2014	3/10/14 9:00	9:00 AM	427	-45	5.73	286	14.6	5.01	0.0	21.29
PZ-7	3/10/2014	3/10/14 13:45	1:45 PM	370	-93	5.12	247	13.4	2.85	0.0	21.26
PZ-7	3/11/2014	3/11/14 8:00	8:00 AM	338	3	5.68	224	13.1	4.33	0.0	21.27
PZ-7	3/11/2014	3/11/14 12:00	12:00 PM	345	12	5.67	227	13.9	4.27	0.0	20.95
PZ-7	3/11/2014	3/11/14 15:00	3:00 PM	324	45	5.54	211	16.8	4.51	0.0	20.95
PZ-7	3/11/2014	3/11/14 17:12	5:12 PM	338	104	5.45	222	15.7	3.19	0.0	20.94
PZ-7	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	5.44	NA	NA	NA	0.0	21.24
PZ-7	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	5.64	NA	NA	NA	0.0	NA
PZ-7 ¹	3/14/2014	3/14/14 12:30	12:30 PM	NA	NA	5.63	NA	NA	NA	0.0	NA
PZ-7	3/14/2014	3/14/14 17:30	5:30 PM	NA	NA	5.64	NA	NA	NA	0.0	NA
PZ-7	3/18/2014	3/18/14 10:45	10:45 AM	383	179	5.41	256	11.8	4.09	0.0	NA
PZ-7	3/20/2014	3/20/14 9:00	9:00 AM	401	118	5.85	267	15.2	6.70	0.0	NA
PZ-7	3/24/2014	3/24/14 11:50	11:50 AM	NA	NA	5.91	NA	NA	NA	0.0	NA
PZ-8	3/7/2014	3/7/14 11:17	11:17 AM	433	-161	5.88	292	9.7	6.65	0.0	22.07
PZ-8	3/7/2014	3/7/14 13:20	1:20 PM	441	-90	6.01	297	11.4	7.14	0.0	21.35
PZ-8	3/7/2014	3/7/14 14:00	2:00 PM	448	-118	5.96	302	11.2	4.83	0.0	21.25
PZ-8	3/7/2014	3/7/14 14:40	2:40 PM	437	-162	5.88	295	11.3	4.02	0.0	21.23
PZ-8	3/7/2014	3/7/14 15:05	3:05 PM	433	-172	5.85	293	11.5	3.78	0.0	21.20
PZ-8	3/7/2014	3/7/14 16:15	4:15 PM	454	-123	5.96	308	9.9	5.34	0.0	21.88
PZ-8	3/8/2014	3/8/14 8:30	8:30 AM	429	-156	5.89	289	11.3	4.50	0.0	21.99
PZ-8	3/9/2014	3/9/14 8:30	8:30 AM	432	-182	5.75	291	12.5	4.26	0.0	22.00
PZ-8	3/10/2014	3/10/14 9:00	9:00 AM	426	-112	5.86	285	14.2	4.14	0.0	22.00
PZ-8	3/10/2014	3/10/14 13:45	1:45 PM	399	-117	5.61	267	13.3	3.18	0.0	21.96
PZ-8	3/11/2014	3/11/14 8:00	8:00 AM	395	-11	5.84	265	12.7	5.49	0.0	21.95
PZ-8	3/11/2014	3/11/14 12:00	12:00 PM	348	-7	5.47	230	14.9	3.87	0.0	21.45
PZ-8	3/11/2014	3/11/14 15:00	3:00 PM	334	48	5.35	219	16.9	4.08	0.0	21.64
PZ-8	3/11/2014	3/11/14 17:12	5:12 PM	348	-10	5.53	229	16.0	4.20	0.0	21.66
PZ-8	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	5.46	NA	NA	NA	0.0	21.90
PZ-8	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	5.53	NA	NA	NA	0.0	NA
PZ-8 ¹	3/14/2014	3/14/14 12:30	12:30 PM	NA	NA	5.50	NA	NA	NA	0.0	NA
PZ-8	3/14/2014	3/14/14 17:30	5:30 PM	NA	NA	5.69	NA	NA	NA	0.0	NA
PZ-8	3/18/2014	3/18/14 10:45	10:45 AM	381	95	5.47	254	10.0	5.91	ND	NA
PZ-8	3/20/2014	3/20/14 9:00	9:00 AM	922	315	5.36	632	14.9	5.74	350.0	NA
PZ-8	3/21/2014	3/21/14 9:00	9:00 AM	NA	NA	6.29	NA	NA	NA	700.0	NA
PZ-8	3/24/2014	3/24/14 11:50	11:50 AM	3365	184	11.06	2509	12.0	5.66	1050.0	NA
PZ-9	3/10/2014	3/10/14 13:45	1:45 PM	n/a	n/a	5.37	n/a	n/a	n/a	n/a	n/a
PZ-9	3/11/2014	3/11/14 8:00	8:00 AM	508	-14	5.90	343	13.5	3.81	0.0	21.41
PZ-9	3/11/2014	3/11/14 12:00	12:00 PM	409	-12	6.06	272	16.1	5.10	0.0	20.90
PZ-9	3/11/2014	3/11/14 15:00	3:00 PM	370	46	5.89	244	17.2	4.71	0.0	21.11
PZ-9	3/11/2014	3/11/14 17:12	5:12 PM	392	26	6.10	260	16.4	5.66	0.0	21.17
PZ-9	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	5.83	NA	NA	NA	0.0	21.37
PZ-9	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	5.95	NA	NA	NA	0.0	NA
PZ-9 ¹	3/14/2014	3/14/14 12:30	12:30 PM	6243	-125	12.20	4939	11.2	7.80	1275.0	NA
PZ-9	3/14/2014	3/14/14 17:30	5:30 PM	4488	-17	11.89	3417	15.2	6.15	1275.0	NA
PZ-9	3/18/2014	3/18/14 10:45	10:45 AM	4409	-107	11.93	3356	11.3	6.53	1050.0	NA
PZ-9	3/20/2014	3/20/14 9:00	9:00 AM	4476	24	11.75	3409	15.0	4.91	1750.0	NA
PZ-10	3/10/2014	3/10/14 13:45	1:45 PM	NA	NA	5.84	NA	NA	NA	NA	NA
PZ-10	3/11/2014	3/11/14 8:00	8:00 AM	707	-150	6.42	480	13.2	2.48	0.0	18.92
PZ-10	3/11/2014	3/11/14 12:00	12:00 PM	688	-198	6.40	466	16.2	2.74	0.0	18.40
PZ-10	3/11/2014	3/11/14 15:00	3:00 PM	676	-155	6.35	456	17.2	2.52	0.0	18.76
PZ-10	3/11/2014	3/11/14 17:12	5:12 PM	660	-151	6.35	446	16.4	2.87	0.0	18.67
PZ-10	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	6.25	NA	NA	NA	0.0	18.90
PZ-10	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	6.27	NA	NA	NA	0.0	NA
PZ-10 ¹	3/14/2014	3/14/14 12:30	12:30 PM	5583	-144	12.18	4367	12.5	5.92	1050.0	NA
PZ-10	3/14/2014	3/14/14 17:30	5:30 PM	5663	-108	12.09	4396	16.5	5.88	900.0	NA
PZ-10	3/18/2014	3/18/14 10:45	10:45 AM	1557	-53	8.33	1096	11.1	5.44	280.0	NA
PZ-10	3/20/2014	3/20/14 9:00	9:00 AM	1341	142	7.66	935	14.8	7.97	250.0	NA

Notes:

ft bgs = feet below ground surface

uS = micro siemens

mV = milli volts

mg/l = milligrams per liter

C = degree Celsius

NA = not analyzed

DTW = Depth to water

Conductivity and TDS values represented as 10,000 indicate value

greater than that number (above the measurement capability of the

testing instrument).

1. Process monitoring methods switched to weighted bailers/peristaltic pump

DO = Dissolved oxygen

TDS = Total dissolved solids

ORP = Redox Potential

Cond = Conductivity

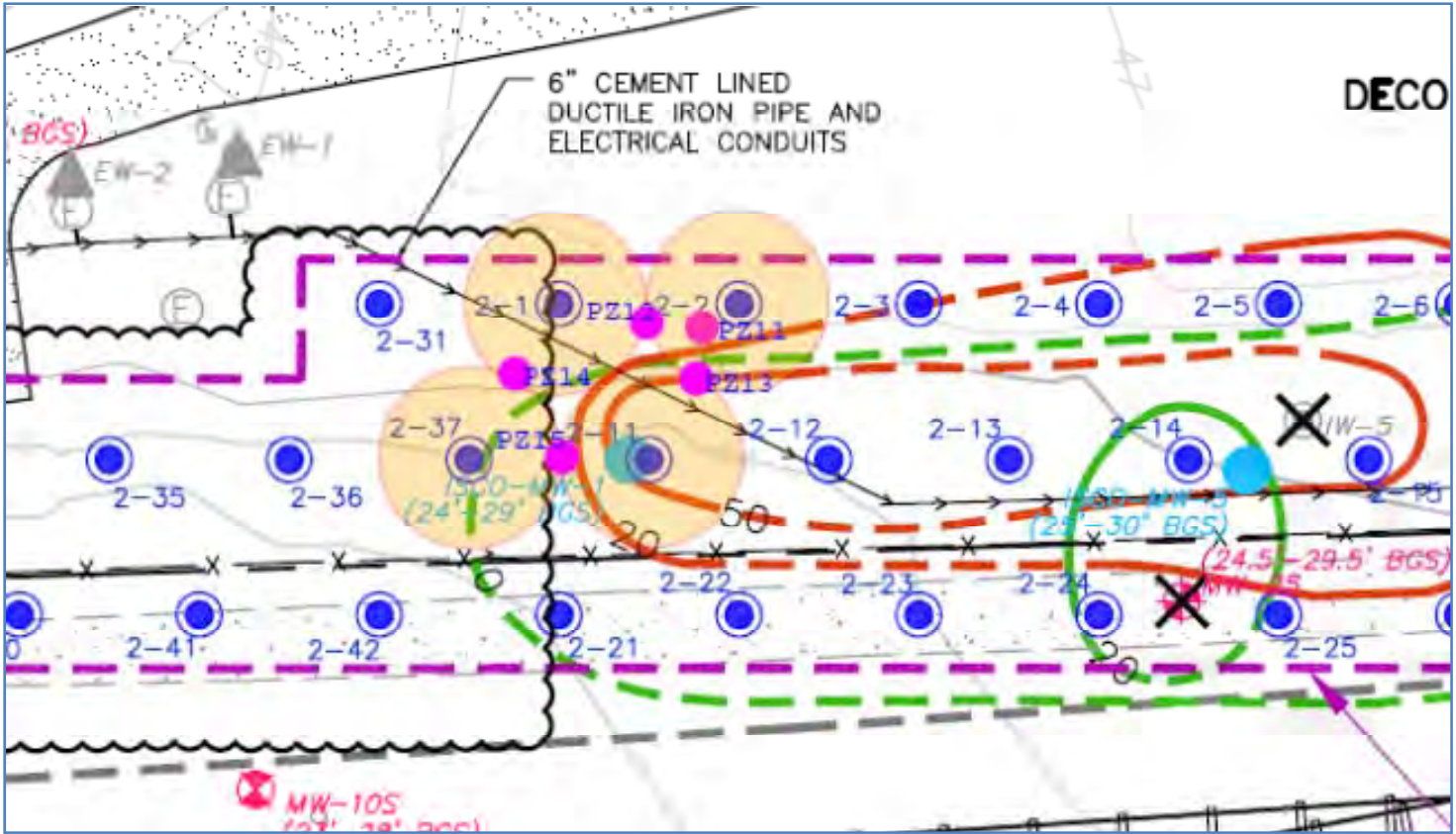
Persulfate concentrations represented as 5,250 mg/l

indicate concentration greater than that number as this was

the highest dilution factor utilized when determining

persulfate concentration.

*Attachment 4:
Treatment Area 2
Second Verification Testing
Layout & Results*



Monitoring and Injection Point Screen Depth Intervals - Area 2 - 2nd Reagent Verification Area (Test 2)

Location ID	2-1	2-2	2-11	2-37	PZ-1	PZ-2	PZ-2	PZ-4	PZ-5	MW-1
Depth BGS	21.5-36.5	23-38	20-35	19-34	23.5-33.5	23.5-33.5	23.5-33.5	23.5-33.5	23.5-33.5	24-29

Distances Between Injection and Monitoring Point Locations

Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance
PZ-11	2-2	4'9"	PZ-13	2-2	9'7"	PZ-15	2-37	9'11"
				2-11	10'4"		2-11	10'4"
PZ-12	2-1	10'1"	PZ-14	2-1	9'11"	MW-1	2-11	2'2"
	2-2	9'9"		2-37	10'5"			

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Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C	DO mg/l	Persulfate mg/l	DTW ft bgs
MW-1	3/12/2014	3/12/14 12:30	12:30 PM	329	201	5.70	216	16.5	4.89	0.0	19.70
MW-1	3/12/2014	3/12/14 13:30	1:30 PM	305	161	5.62	200	14.5	3.05	0.0	19.23
MW-1	3/12/2014	3/12/14 14:15	2:15 PM	311	34	6.10	204	14.9	4.24	0.0	19.13
MW-1	3/12/2014	3/12/14 15:10	3:10 PM	308	180	5.75	202	15.3	4.18	0.0	19.45
MW-1	3/12/2014	3/12/14 16:00	4:00 PM	88	225	13.19	129	14.6	5.68	5250.0	18.90
MW-1	3/12/2014	3/12/14 17:20	5:20 PM	25	111	12.94	24	13.7	8.09	5250.0	18.85
MW-1	3/13/2014	3/13/14 8:00	8:00 AM	3690	-7	12.03	2795	8.1	4.76	1125.0	20.17
MW-1	3/13/2014	3/13/14 13:30	1:30 PM	870	328	6.82	596	13.4	6.57	105.0	13.40
MW-1	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	6.62	NA	NA	NA	105.0	NA
MW-1 ¹	3/14/2014	3/14/14 7:45	7:45 AM	737	342	6.60	504	9.3	4.90	160.0	20.26
MW-1	3/14/2014	3/14/14 11:00	11:00 AM	7609	172	12.68	6147	10.3	3.36	1875.0	19.71
MW-1	3/14/2014	3/14/14 16:30	4:30 PM	10000	190	13.03	10000	13.4	6.25	5250.0	19.95
MW-1	3/17/2014	3/17/14 9:15	9:15 AM	10000	191	13.09	10000	10.3	5.28	5250.0	20.40
MW-1	3/18/2014	3/18/14 7:45	7:45 AM	10000	134	12.95	10000	9.8	7.39	5250.0	21.52
MW-1	3/20/2014	3/20/14 10:00	10:00 AM	10000	94	12.82	10000	14.8	3.52	2100.0	NA
MW-1	3/21/2014	3/21/14 10:00	10:00 AM	10000	137	12.79	10000	11.7	9.14	2625.0	NA
MW-1	3/24/2014	3/24/14 11:50	11:50 AM	10000	121	13.09	10000	11.6	5.56	5250.0	NA
MW-1	3/25/2014	3/25/14 9:50	9:50 AM	10000	209	13.21	10000	11.2	6.57	4200.0	NA
MW-1	3/26/2014	3/26/14 14:20	2:20 PM	10000	121	13.02	10000	12.1	8.78	1875.0	NA
MW-1	3/27/2014	3/27/14 13:21	1:21 PM	10000	145	12.72	10000	13.4	8.83	1575.0	NA
MW-1	3/28/2014	3/28/14 8:40	8:40 AM	10000	137	12.74	10000	11.7	10.44	3150.0	NA
MW-1	3/31/2014	3/31/14 12:15	12:15 PM	10000	79	12.57	10000	14.6	6.50	3150.0	NA
MW-1	4/1/2014	4/1/14 8:00	8:00 AM	10000	156	12.58	9065	12.6	8.40	1275.0	NA
PZ-11	3/12/2014	3/12/14 12:30	12:30 PM	469	-64	6.06	314	16.4	4.12	0.0	21.21
PZ-11	3/12/2014	3/12/14 15:30	1:30 PM	497	-41	6.19	334	14.5	4.66	0.0	20.48
PZ-11	3/12/2014	3/12/14 14:15	2:15 PM	492	-67	6.17	332	14.6	3.89	0.0	20.40
PZ-11	3/12/2014	3/12/14 15:40	3:40 PM	471	-38	6.19	316	15.5	4.82	0.0	20.95
PZ-11	3/12/2014	3/12/14 16:10	4:10 PM	468	-135	6.76	314	14.5	3.20	0.0	20.15
PZ-11	3/12/2014	3/12/14 17:20	5:20 PM	466	-136	6.12	311	14.6	4.62	0.0	20.11
PZ-11	3/13/2014	3/13/14 8:00	8:00 AM	NA	NA	4.80	NA	6.8	NA	0.0	21.43
PZ-11	3/13/2014	3/13/14 13:30	1:30 PM	619	-235	6.18	420	12.3	3.93	21.0	12.30
PZ-11	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	6.14	NA	NA	NA	7.0	NA
PZ-11 ¹	3/14/2014	3/14/14 7:45	7:45 AM	10000	-292	12.84	10000	8.9	3.18	5250.0	21.52
PZ-11	3/14/2014	3/14/14 11:00	11:00 AM	10000	290	13.23	10000	9.4	1.46	5250.0	NA
PZ-11	3/14/2014	3/14/14 16:30	4:30 PM	10000	244	13.00	10000	12.6	5.25	5250.0	11.80
PZ-11	3/17/2014	3/17/14 9:15	9:15 AM	7619	72	12.46	6154	9.1	3.94	4200.0	21.58
PZ-11	3/18/2014	3/18/14 7:45	7:45 AM	10000	78	12.62	10000	8.6	6.73	1575.0	NA
PZ-11	3/20/2014	3/20/14 10:00	10:00 AM	5656	101	12.22	4392	15.1	5.52	900.0	NA
PZ-12	3/12/2014	3/12/14 12:30	12:30 PM	416	-36	6.07	277	16.7	3.83	0.0	22.19
PZ-12	3/12/2014	3/12/14 15:30	1:30 PM	420	-57	6.19	280	14.8	4.24	0.0	21.48
PZ-12	3/12/2014	3/12/14 14:15	2:15 PM	402	-61	6.17	268	14.8	3.63	0.0	21.42
PZ-12	3/12/2014	3/12/14 15:40	3:40 PM	393	-32	6.24	261	15.4	5.27	0.0	21.91
PZ-12	3/12/2014	3/12/14 16:10	4:10 PM	387	-138	6.16	256	14.1	3.11	0.0	21.20
PZ-12	3/12/2014	3/12/14 17:20	5:20 PM	390	-113	6.06	261	13.8	4.08	0.0	21.21
PZ-12	3/13/2014	3/13/14 8:00	8:00 AM	NA	NA	5.96	NA	6.7	NA	0.0	22.40
PZ-12	3/13/2014	3/13/14 13:30	1:30 PM	317	-170	6.09	208	13.0	3.67	1.4	13.00
PZ-12	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	6.02	NA	NA	NA	0.0	NA
PZ-12 ¹	3/14/2014	3/14/14 7:45	7:45 AM	412	-305	6.10	278	10.3	2.26	18.0	22.50
PZ-12	3/14/2014	3/14/14 11:00	11:00 AM	10000	276	13.01	10000	9.3	4.79	5250.0	NA
PZ-12	3/14/2014	3/14/14 16:30	4:30 PM	10000	241	13.18	10000	12.5	6.13	5250.0	18.07
PZ-12	3/17/2014	3/17/14 9:15	9:15 AM	10000	34	12.57	8441	8.6	3.98	4200.0	22.55
PZ-12	3/18/2014	3/18/14 7:45	7:45 AM	10000	109	12.84	10000	8.8	5.34	1875.0	NA
PZ-12	3/20/2014	3/20/14 10:00	10:00 AM	4255	110	12.21	3221	15.3	4.44	375.0	NA
PZ-13	3/12/2014	3/12/14 12:30	12:30 PM	462	-104	6.26	310	16.5	5.17	0.0	20.36
PZ-13	3/12/2014	3/12/14 15:30	1:30 PM	466	-118	6.30	313	14.5	3.32	0.0	19.70
PZ-13	3/12/2014	3/12/14 14:15	2:15 PM	467	-137	6.28	314	14.5	2.75	0.0	19.59
PZ-13	3/12/2014	3/12/14 15:40	3:40 PM	467	-123	6.27	314	14.6	2.97	0.0	20.12
PZ-13	3/12/2014	3/12/14 16:10	4:10 PM	458	-138	6.29	307	14.5	3.99	0.0	19.33
PZ-13	3/12/2014	3/12/14 17:20	5:20 PM	462	-150	6.29	310	13.4	4.13	0.0	19.35
PZ-13	3/13/2014	3/13/14 8:00	8:00 AM	NA	NA	6.06	NA	7.1	NA	0.0	20.58
PZ-13	3/13/2014	3/13/14 10:00	10:00 AM	10000	175	13.03	10000	10.4	4.74	5250.0	NA
PZ-13	3/13/2014	3/13/14 13:30	1:30 PM	610	-249	6.25	410	12.9	3.33	14.0	12.90
PZ-13	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	6.20	NA	NA	NA	7.0	NA
PZ-13 ¹	3/14/2014	3/14/14 7:45	7:45 AM	10000	-267	12.93	10000	10.2	2.64	5250.0	20.68
PZ-13	3/14/2014	3/14/14 11:00	11:00 AM	10000	247	13.13	10000	9.6	2.48	5250.0	NA
PZ-13	3/14/2014	3/14/14 16:30	4:30 PM	10000	255	13.13	10000	12.0	5.00	5250.0	15.02
PZ-13	3/17/2014	3/17/14 9:15	9:15 AM	10000	-15	12.63	8906	9.6	5.02	3000.0	NA
PZ-13	3/18/2014	3/18/14 7:45	7:45 AM	10000	98	12.72	9545	9.6	4.78	1350.0	NA
PZ-13	3/20/2014	3/20/14 10:00	10:00 AM	10000	113	12.83	10000	14.5	8.88	3000.0	NA

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Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
PZ-14	3/12/2014	3/12/14 12:30	12:30 PM	400	-136	6.22	266	16.5	1.68	0.0	21.10
PZ-14	3/12/2014	3/12/14 15:30	1:30 PM	360	-50	6.14	238	14.7	4.13	0.0	20.38
PZ-14	3/12/2014	3/12/14 14:15	2:15 PM	333	22	6.04	219	14.7	4.90	0.0	20.29
PZ-14	3/12/2014	3/12/14 15:40	3:40 PM	315	61	6.05	207	15.3	5.50	0.0	20.73
PZ-14	3/12/2014	3/12/14 16:10	4:10 PM	336	-1	6.17	221	14.5	6.17	0.0	20.15
PZ-14	3/12/2014	3/12/14 17:20	5:20 PM	364	-15	6.04	242	13.9	6.02	0.0	20.17
PZ-14	3/13/2014	3/13/14 8:00	8:00 AM	NA	NA	5.73	NA	7.1	NA	0.0	21.31
PZ-14	3/13/2014	3/13/14 13:30	1:30 PM	289	-80	5.82	189	12.7	4.68	0.7	12.70
PZ-14	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	5.74	NA	NA	NA	0.7	NA
PZ-14 ¹	3/14/2014	3/14/14 7:45	7:45 AM	437	-196	6.70	295	11.1	2.03	32.0	21.40
PZ-14	3/14/2014	3/14/14 11:00	11:00 AM	301	-203	5.82	198	9.5	3.61	0.0	20.86
PZ-14	3/14/2014	3/14/14 16:30	4:30 PM	588	-152	6.60	399	13.0	2.92	0.0	21.24
PZ-14	3/15/2014	3/15/14 7:40	7:40 AM	294	-57	5.99	195	13.8	5.71	0.0	21.25
PZ-14	3/17/2014	3/17/14 9:15	9:15 AM	272	-128	6.84	177	10.0	3.33	0.0	21.35
PZ-14	3/18/2014	3/18/14 7:45	7:45 AM	267	29	6.65	173	11.5	3.83	0.0	NA
PZ-14	3/20/2014	3/20/14 10:00	10:00 AM	264	18	7.37	171	15.0	5.59	0.0	NA
PZ-14	3/21/2014	3/21/14 10:00	10:00 AM	NA	NA	7.47	NA	NA	NA	0.0	NA
PZ-14	3/24/2014	3/24/14 11:50	11:50 AM	NA	NA	5.84	NA	NA	NA	0.0	NA
PZ-15	3/12/2014	3/12/14 12:30	12:30 PM	442	-136	6.36	295	16.5	2.82	0.0	19.11
PZ-15	3/12/2014	3/12/14 15:30	1:30 PM	403	-110	6.21	269	13.9	3.30	0.0	18.40
PZ-15	3/12/2014	3/12/14 14:15	2:15 PM	378	-74	6.18	252	14.5	2.96	0.0	18.33
PZ-15	3/12/2014	3/12/14 15:40	3:40 PM	360	-28	6.06	238	14.8	3.38	0.0	18.71
PZ-15	3/12/2014	3/12/14 16:10	4:10 PM	368	-106	6.12	244	13.8	3.62	0.0	18.30
PZ-15	3/12/2014	3/12/14 17:20	5:20 PM	382	-157	6.09	255	13.9	3.12	0.0	18.26
PZ-15	3/13/2014	3/13/14 8:00	8:00 AM	NA	NA	5.96	NA	7.4	NA	0.0	19.30
PZ-15	3/13/2014	3/13/14 13:30	1:30 PM	312	-153	5.95	204	12.9	3.74	0.0	12.90
PZ-15	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	5.92	NA	NA	NA	0.0	NA
PZ-15 ¹	3/14/2014	3/14/14 7:45	7:45 AM	290	-187	5.71	190	11.9	2.97	0.0	19.40
PZ-15	3/14/2014	3/14/14 11:00	11:00 AM	333	-295	5.80	220	10.5	3.17	0.0	18.62
PZ-15	3/14/2014	3/14/14 16:30	4:30 PM	327	-80	6.03	215	13.8	4.43	0.0	19.26
PZ-15	3/15/2014	3/15/14 7:40	7:40 AM	295	-80	5.79	193	13.6	5.53	0.0	19.62
PZ-15	3/17/2014	3/17/14 9:15	9:15 AM	275	-212	5.81	179	10.5	3.28	0.0	19.40
PZ-15	3/18/2014	3/18/14 7:45	7:45 AM	263	156	5.79	171	11.0	4.77	0.0	NA
PZ-15	3/20/2014	3/20/14 10:00	10:00 AM	255	160	6.05	165	15.6	7.41	0.0	NA
PZ-15	3/21/2014	3/21/14 10:00	10:00 AM	NA	NA	6.35	NA	NA	NA	14.0	NA
PZ-15	3/24/2014	3/24/14 11:50	11:50 AM	1706	218	7.22	1209	NA	4.69	350.0	NA

Notes:

ft bgs = feet below ground surface

uS = micro siemens

mV = milli volts

mg/l = milligrams per liter

C = degree Celsius

NA = not analyzed

DTW = Depth to water

Conductivity and TDS values represented as 10,000 indicate value greater than that number (above the measurement capability of the testing instrument).

1. Process monitoring methods switched to weighted bailers/peristaltic pump

DO = Dissolved oxygen

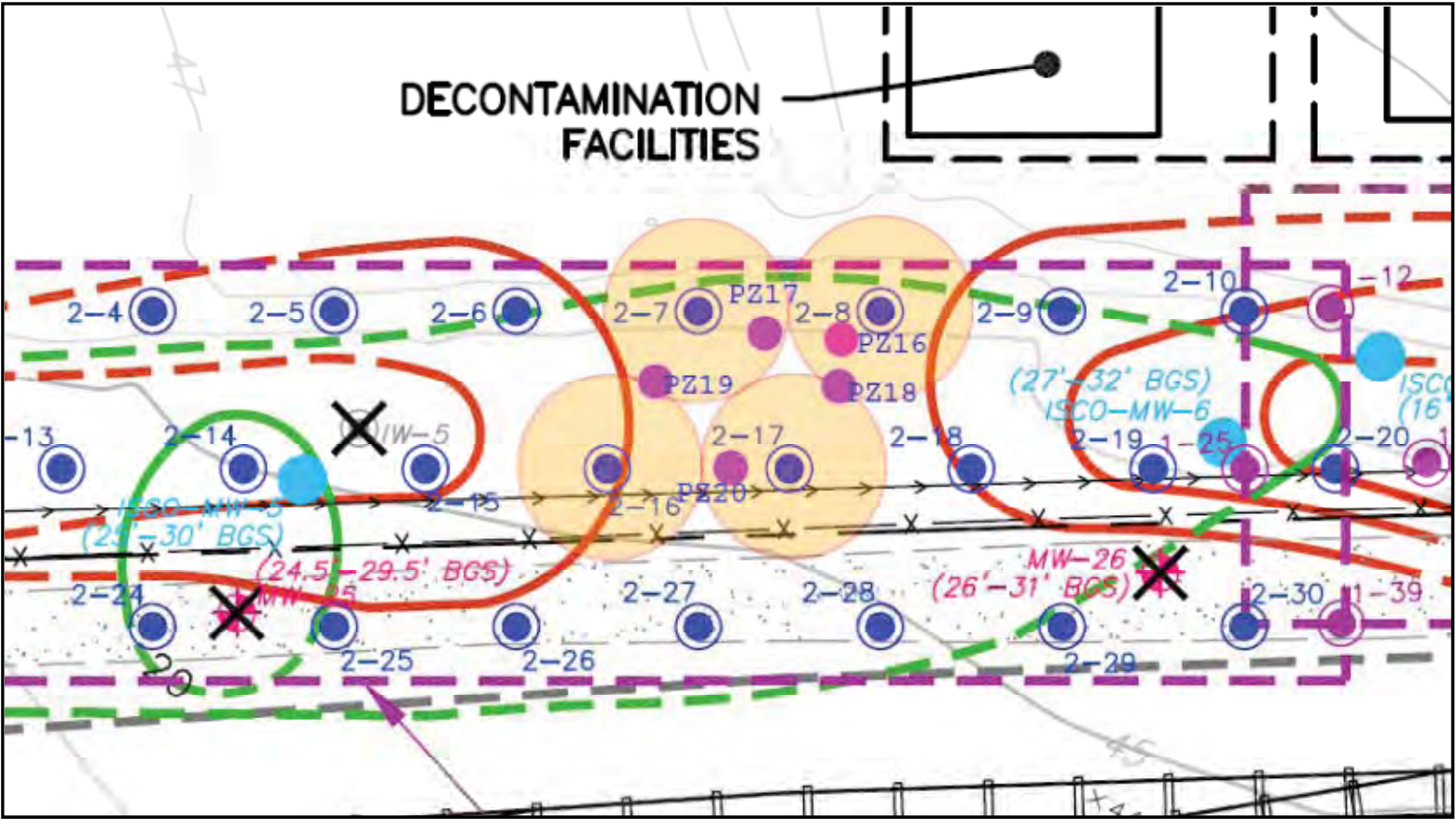
TDS = Total dissolved solids

ORP = Redox Potential

Cond = Conductivity

Persulfate concentrations represented as 5,250 mg/l indicate concentration greater than that number as this was the highest dilution factor utilized when determining persulfate concentration.

*Attachment 5:
Treatment Area 2
Third Verification Testing
Layout & Results*



Monitoring and Injection Point Screen Depth Intervals - Area 2 - Reagent Verification Area (Test 3)

Location ID	2-7	2-8	2-16	2-17	PZ-16	PZ-17	PZ-18	PZ-19	PZ-20
Depth BGS	24-39	24-39	22.5-37.5	22.5-37.5	25.5-35.5	25.5-35.5	25.5-35.5	25.5-35.5	25.5-35.5

Distances Between Injection and Monitoring Point Locations

Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance	Sampling Location	Nearest IP Location	Distance
PZ-16	2-8	4'9"	PZ-18	2-8	9'5"	PZ-20	2-17	7'5"
				2-17	10'5"		2-16	12'8"
PZ-17	2-7	7'2"	PZ-19	2-7	7'7"			
	2-8	12'3"		2-16	9'9"			

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Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
PZ-16	3/19/2014	3/19/2014 7:30	7:30 AM	684	-258	6.06	464	11.3	3.31	0.0	21.66
PZ-16	3/19/2014	3/19/2014 9:50	9:50 AM	676	-35	6.06	460	12.0	7.57	0.0	20.70
PZ-16	3/19/2014	3/19/2014 10:31	10:31 AM	1280	115	6.25	900	11.2	7.19	280.0	20.87
PZ-16	3/19/2014	3/19/2014 11:20	11:20 AM	2885	-4	10.33	2133	12.1	8.79	1050.0	20.90
PZ-16	3/19/2014	3/19/2014 12:43	12:43 PM	10000	-47	12.71	10000	13.6	7.11	4875.0	20.51
PZ-16	3/19/2014	3/19/2014 13:35	1:35 PM	10000	-101	12.86	10000	13.9	4.92	5250.0	20.53
PZ-16	3/19/2014	3/19/2014 14:25	2:25 PM	10000	30	12.96	10000	11.2	5.07	5250.0	20.71
PZ-17	3/19/2014	3/19/2014 7:30	7:30 AM	409	-43	6.02	275	10.8	3.89	0.0	20.92
PZ-17	3/19/2014	3/19/2014 9:50	9:50 AM	330	61	6.05	216	12.1	5.97	0.0	20.10
PZ-17	3/19/2014	3/19/2014 10:31	10:31 AM	302	117	6.02	199	12.0	7.71	0.0	20.10
PZ-17	3/19/2014	3/19/2014 11:20	11:20 AM	290	24	6.65	190	12.2	6.42	0.0	20.15
PZ-17	3/19/2014	3/19/2014 12:43	12:43 PM	478	-48	6.39	323	13.6	5.09	0.0	19.99
PZ-17	3/19/2014	3/19/2014 13:35	1:35 PM	508	-57	6.34	342	13.4	3.37	0.0	20.03
PZ-17	3/19/2014	3/19/2014 14:25	2:25 PM	522	-52	6.45	354	11.4	3.35	0.0	19.99
PZ-17	3/19/2014	3/19/2014 15:50	3:50 PM	509	42	5.90	344	12.0	6.18	0.0	20.22
PZ-17	3/19/2014	3/19/2014 16:35	4:35 PM	494	33	5.87	331	12.9	5.86	0.0	20.19
PZ-17	3/19/2014	3/19/2014 17:20	5:20 PM	478	76	5.88	323	11.5	7.08	0.0	20.21
PZ-17	3/20/2014	3/20/2014 7:30	7:30 AM	520	74	5.93	350	13.4	6.42	0.0	20.76
PZ-17	3/20/2014	3/20/2014 14:55	2:55 PM	497	158	5.81	334	15.1	5.42	14.0	NA
PZ-17	3/21/2014	3/21/2014 8:00	8:00 AM	4743	173	11.62	3644	13.6	8.51	1050.0	NA
PZ-17	3/24/2014	3/24/2014 14:00	2:00 PM	3551	251	10.68	2653	13.2	8.42	525.0	NA
PZ-18	3/19/2014	3/19/2014 7:30	7:30 AM	525	-182	5.89	354	11.8	3.40	0.0	21.41
PZ-18	3/19/2014	3/19/2014 9:50	9:50 AM	587	46	5.79	399	12.3	4.83	0.0	20.70
PZ-18	3/19/2014	3/19/2014 10:31	10:31 AM	561	-34	5.62	378	12.6	6.64	0.0	20.65
PZ-18	3/19/2014	3/19/2014 11:20	11:20 AM	555	24	5.71	376	11.8	3.81	0.0	20.70
PZ-18	3/19/2014	3/19/2014 12:43	12:43 PM	326	-14	5.80	215	13.6	4.78	0.0	20.42
PZ-18	3/19/2014	3/19/2014 13:35	1:35 PM	305	54	5.74	200	13.5	3.16	0.0	20.41
PZ-18	3/19/2014	3/19/2014 14:25	2:25 PM	370	93	5.76	247	11.8	3.54	0.0	20.53
PZ-18	3/19/2014	3/19/2014 15:50	3:50 PM	273	124	5.50	178	12.4	4.21	0.0	20.69
PZ-18	3/19/2014	3/19/2014 16:35	4:35 PM	265	135	5.46	172	12.6	5.73	0.0	20.69
PZ-18	3/19/2014	3/19/2014 17:20	5:20 PM	263	172	5.48	171	10.9	6.54	0.0	20.71
PZ-18	3/20/2014	3/20/2014 7:30	7:30 AM	10000	29	12.70	10000	13.6	5.39	3375.0	21.28
PZ-18	3/20/2014	3/20/2014 14:55	2:55 PM	10000	25	12.67	10000	15.8	5.14	2625.0	NA
PZ-18	3/21/2014	3/21/2014 8:00	8:00 AM	10000	118	12.88	10000	12.9	6.58	5250.0	NA
PZ-18	3/24/2014	3/24/2014 14:00	2:00 PM	10000	149	12.74	10000	12.8	8.95	2100.0	NA
PZ-19	3/19/2014	3/19/2014 7:30	7:30 AM	382	-194	6.39	255	12.8	2.94	0.0	21.47
PZ-19	3/19/2014	3/19/2014 9:50	9:50 AM	332	28	6.35	219	12.7	5.35	0.0	20.78
PZ-19	3/19/2014	3/19/2014 10:31	10:31 AM	319	18	6.18	210	12.0	5.01	0.0	20.70
PZ-19	3/19/2014	3/19/2014 11:20	11:20 AM	314	52	6.08	206	13.0	4.27	0.0	20.76
PZ-19	3/19/2014	3/19/2014 12:43	12:43 PM	389	-42	6.13	260	12.8	5.01	0.0	20.43
PZ-19	3/19/2014	3/19/2014 13:35	1:35 PM	419	-10	6.12	282	13.2	2.97	0.0	20.45
PZ-19	3/19/2014	3/19/2014 14:25	2:25 PM	463	31	6.13	313	12.1	3.63	0.0	20.33
PZ-19	3/19/2014	3/19/2014 15:50	3:50 PM	450	51	6.01	303	12.0	4.52	0.0	20.52
PZ-19	3/19/2014	3/19/2014 16:35	4:35 PM	442	51	6.01	298	11.9	7.47	0.0	20.42
PZ-19	3/19/2014	3/19/2014 17:20	5:20 PM	396	111	5.82	265	11.1	8.53	0.0	20.55
PZ-19	3/20/2014	3/20/2014 7:30	7:30 AM	10000	18	12.45	9156	25.0	7.63	2625.0	21.36
PZ-19	3/20/2014	3/20/2014 14:55	2:55 PM	10000	-68	12.65	10000	15.1	3.28	2625.0	NA
PZ-19	3/21/2014	3/21/2014 8:00	8:00 AM	10000	26	12.74	10000	12.8	7.14	3150.0	NA
PZ-19	3/24/2014	3/24/2014 14:00	2:00 PM	10000	86	12.88	10000	12.7	5.93	3675.0	NA
PZ-20	3/19/2014	3/19/2014 7:30	7:30 AM	598	-189	6.03	406	13.0	2.75	0.0	21.41
PZ-20	3/19/2014	3/19/2014 9:50	9:50 AM	684	58	5.62	465	13.0	3.15	0.0	20.65
PZ-20	3/19/2014	3/19/2014 10:31	10:31 AM	678	70	5.54	462	12.3	4.22	0.0	20.55
PZ-20	3/19/2014	3/19/2014 11:20	11:20 AM	674	104	5.60	458	13.1	4.68	0.0	20.60
PZ-20	3/19/2014	3/19/2014 12:43	12:43 PM	475	70	5.64	321	12.2	5.32	0.0	20.38
PZ-20	3/19/2014	3/19/2014 13:35	1:35 PM	406	85	5.60	272	13.4	3.65	0.0	20.38
PZ-20	3/19/2014	3/19/2014 14:25	2:25 PM	418	130	5.62	281	11.8	4.09	0.0	20.53
PZ-20	3/19/2014	3/19/2014 15:50	3:50 PM	331	205	5.15	218	12.8	6.73	0.0	20.58
PZ-20	3/19/2014	3/19/2014 16:35	4:35 PM	322	164	5.12	212	12.3	6.39	0.0	20.47
PZ-20	3/19/2014	3/19/2014 17:20	5:20 PM	315	225	5.27	208	11.5	8.62	0.0	20.55
PZ-20	3/20/2014	3/20/2014 7:30	7:30 AM	10000	53	12.64	10000	14.4	7.56	3150.0	21.26
PZ-20	3/20/2014	3/20/2014 14:55	2:55 PM	10000	124	13.10	10000	15.5	4.81	5250.0	NA
PZ-20	3/21/2014	3/21/2014 8:00	8:00 AM	10000	184	13.04	10000	11.9	7.41	5250.0	NA
PZ-20	3/24/2014	3/24/2014 14:00	2:00 PM	10000	144	13.06	10000	13.0	5.73	5250.0	NA

Notes:

ft bgs = feet below ground surface
uS = micro siemens
mV = milli volts
mg/l = milligrams per liter
C = degree Celsius
NA = not analyzed
DTW = Depth to water
Conductivity and TDS values represented as 10,000 indicate value greater than that number (above the measurement capability of the testing instrument).

DO = Dissolved oxygen
TDS = Total dissolved solids
ORP = Redox Potential
Cond = Conductivity
Persulfate concentrations represented as 5,250 mg/l indicate concentration greater than that number as this was the highest dilution factor utilized when determining persulfate concentration.

*Attachment 6:
Treatment Area 2
Injection Summary &
Process Monitoring Results*

Treatment Area 2 Injection Data Summary
Evor Phillips Leasing Company Superfund Site
Operable Unit 3 (OU3)
Old Bridge, New Jersey
ISOTEC #801870



Date Completed	Injection Point ID	Screen Interval (ft bgs)	Persulfate Concentration (g/L)	Base to Persulfate Molar Ratio	BASP Injection Time (mins)	BASP Volume (gal)	BASP Flow Rate (gpm)	Sodium Persulfate (lbs)	Sodium Hydroxide (lbs)	Maximum Well Head Pressure (psi)
7-Mar-14	2-14	24.5'-29.5'	50	~4.52:1	132	800.0	6.06	330	1014.2	0-10
7-Mar-14	2-15	27'-32'	50	~4.52:1	132	800.0	6.06	330	1014.2	0-15
7-Mar-14	2-24	25.5'-30.5'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-12
7-Mar-14	2-25	26'-31'	50	~4.52:1	138	800.0	5.80	330	1014.2	0-8
11-Mar-14	2-14	19.5'-24.5'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-30
11-Mar-14	2-15	22'-27'	50	~4.52:1	149	800.0	5.37	330	1014.2	0-10
11-Mar-14	2-24	20.5'-25.5'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-14
11-Mar-14	2-25	21'-26'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-10
11-Mar-14	2-14	29.5'-34.5'	50	~4.52:1	149	800.0	5.37	330	1014.2	0-6
11-Mar-14	2-15	32'-37'	50	~4.52:1	147	800.0	5.44	330	1014.2	0-8
11-Mar-14	2-24	30.5'-35.5'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-20
11-Mar-14	2-25	31'-36'	50	~4.52:1	117	800.0	6.84	330	1014.2	0-6
12-Mar-14	2-1	31.5'-36.5'	50	~4.52:1	119	800.0	6.72	330	1014.2	0-8
12-Mar-14	2-1	26.5'-31.5'	50	~4.52:1	117	800.0	6.84	330	1014.2	0-10
12-Mar-14	2-2	33'-38'	50	~4.52:1	123	800.0	6.50	330	1014.2	0-14
12-Mar-14	2-2	28'-33'	50	~4.52:1	109	800.0	7.34	330	1014.2	0-10
12-Mar-14	2-11	30'-35'	50	~4.52:1	147	800.0	5.44	330	1014.2	0-4
12-Mar-14	2-11	25'-30'	50	~4.52:1	120	800.0	6.67	330	1014.2	0-10
12-Mar-14	2-37	29'-34'	50	~4.52:1	119	800.0	6.72	330	1014.2	0-4
12-Mar-14	2-37	24'-29'	50	~4.52:1	123	800.0	6.50	330	1014.2	0-10
14-Mar-14	2-1	21.5'-26.5'	50	~4.52:1	255	800.0	3.14	330	1014.2	0-20
14-Mar-14	2-2	23'-28'	50	~4.52:1	306	800.0	2.61	330	1014.2	0-28
14-Mar-14	2-11	20'-25'	50	~4.52:1	260	800.0	3.08	330	1014.2	0-30
14-Mar-14	2-37	19'-24'	50	~4.52:1	235	800.0	3.40	330	1014.2	0-35
17-Mar-14	2-31	30'-35'	50	~4.52:1	121	800.0	6.61	330	1014.2	0-8
17-Mar-14	2-31	25'-30'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-20
17-Mar-14	2-34	31'-36'	50	~4.52:1	155	800.0	5.16	330	1014.2	0-40
17-Mar-14	2-34	21'-26'	50	~4.52:1	123	800.0	6.50	330	1014.2	0-8
17-Mar-14	2-35	30'-35'	50	~4.52:1	127	800.0	6.30	330	1014.2	0-45
17-Mar-14	2-35	25'-30'	50	~4.52:1	123	800.0	6.50	330	1014.2	0-12
17-Mar-14	2-36	29'-34'	50	~4.52:1	127	800.0	6.30	330	1014.2	0-30
17-Mar-14	2-36	24'-29'	50	~4.52:1	123	800.0	6.50	330	1014.2	0-12
18-Mar-14	2-3	35'-40'	50	~4.52:1	100	800.0	8.00	330	1014.2	0-25
18-Mar-14	2-3	30'-35'	50	~4.52:1	152	800.0	5.26	330	1014.2	0-8
18-Mar-14	2-12	32.5'-37.5'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-8
18-Mar-14	2-12	27.5'-32.5'	50	~4.52:1	141	800.0	5.67	330	1014.2	0-2
18-Mar-14	2-31	20'-25'	50	~4.52:1	136	800.0	5.88	330	1014.2	0-30
18-Mar-14	2-34	21'-26'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-8
18-Mar-14	2-35	20'-25'	50	~4.52:1	145	800.0	5.52	330	1014.2	0-28
18-Mar-14	2-36	19'-24'	50	~4.52:1	143	800.0	5.59	330	1014.2	0-12
19-Mar-14	2-7	34'-39'	50	~4.52:1	148	800.0	5.41	330	1014.2	0-6
19-Mar-14	2-7	29'-34'	50	~4.52:1	135	800.0	5.93	330	1014.2	0-5
19-Mar-14	2-7	24'-29'	50	~4.52:1	143	800.0	5.59	330	1014.2	0-6
19-Mar-14	2-8	34'-39'	50	~4.52:1	135	800.0	5.93	330	1014.2	0-5
19-Mar-14	2-8	29'-34'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-6
19-Mar-14	2-8	24'-29'	Attempted/ No Volume Injected/ Surfacing							
19-Mar-14	2-16	32.5'-37.5'	50	~4.52:1	141	800.0	5.67	330	1014.2	0-50
19-Mar-14	2-16	27.5'-32.5'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-12
19-Mar-14	2-16	22.5'-27.5'	50	~4.52:1	150	800.0	5.33	330	1014.2	0-22
19-Mar-14	2-17	32.5'-37.5'	50	~4.52:1	135	800.0	5.93	330	1014.2	0-20
19-Mar-14	2-17	27.5'-32.5'	50	~4.52:1	129	800.0	6.20	330	1014.2	0-5
19-Mar-14	2-17	22.5'-27.5'	50	~4.52:1	150	800.0	5.33	330	1014.2	0-25
20-Mar-14	2-3	25'-30'	50	~4.52:1	91	533.0	5.86	220	675.7	0-22
20-Mar-14	2-8	24'-29'	50	~4.52:1	185	800.0	4.32	330	1014.2	0-16
20-Mar-14	2-12	22.5'-27.5'	50	~4.52:1	89	533.0	5.99	220	675.7	0-12
20-Mar-14	2-21	29'-34'	50	~4.52:1	141	800.0	5.67	330	1014.2	0-12
20-Mar-14	2-32	31'-36'	50	~4.52:1	45	267.0	5.93	110	338.5	0-18

Treatment Area 2 Injection Data Summary
Evor Phillips Leasing Company Superfund Site
Operable Unit 3 (OU3)
Old Bridge, New Jersey
ISOTEC #801870



Date Completed	Injection Point ID	Screen Interval (ft bgs)	Persulfate Concentration (g/L)	Base to Persulfate Molar Ratio	BASP Injection Time (mins)	BASP Volume (gal)	BASP Flow Rate (gpm)	Sodium Persulfate (lbs)	Sodium Hydroxide (lbs)	Maximum Well Head Pressure (psi)
20-Mar-14	2-33	31'-36'	50	~4.52:1	43	267.0	6.21	110	338.5	0-20
20-Mar-14	2-38	29.5'-34.5'	50	~4.52:1	151	800.0	5.30	330	1014.2	0-32
20-Mar-14	2-39	30'-35'	50	~4.52:1	170	800.0	4.71	330	1014.2	0-8
20-Mar-14	2-40	29'-34'	50	~4.52:1	145	800.0	5.52	330	1014.2	0-40
20-Mar-14	2-41	28'-33'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-7
21-Mar-14	2-3	25'-30'	50	~4.52:1	46	267.0	5.80	110	338.5	0-22
21-Mar-14	2-12	22.5'-27.5'	50	~4.52:1	50	267.0	5.34	110	338.5	0-20
21-Mar-14	2-21	24'-29'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-8
21-Mar-14	2-21	19'-24'	50	~4.52:1	120	800.0	6.67	330	1014.2	0-20
21-Mar-14	2-32	31'-36'	50	~4.52:1	80	533.0	6.66	220	675.7	0-20
21-Mar-14	2-32	26'-31'	50	~4.52:1	132	800.0	6.06	330	1014.2	0-12
21-Mar-14	2-33	31'-36'	50	~4.52:1	100	533.0	5.33	220	675.7	0-12
21-Mar-14	2-38	24.5'-29.5'	50	~4.52:1	145	800.0	5.52	330	1014.2	0-12
21-Mar-14	2-39	25'-30'	50	~4.52:1	165	800.0	4.85	330	1014.2	0-20
21-Mar-14	2-40	24'-29'	50	~4.52:1	145	800.0	5.52	330	1014.2	0-22
21-Mar-14	2-41	23'-38'	50	~4.52:1	146	800.0	5.48	330	1014.2	0-10
21-Mar-14	2-41	18'-23'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-6
24-Mar-14	2-4	32.5'-37.5'	50	~4.52:1	126	800.0	6.35	330	1014.2	0-40
24-Mar-14	2-5	33'-38'	50	~4.52:1	146	800.0	5.48	330	1014.2	0-12
24-Mar-14	2-13	33'-38'	50	~4.52:1	151	800.0	5.30	330	1014.2	0-15
24-Mar-14	2-32	21'-26'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-15
24-Mar-14	2-33	26'-31'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-15
24-Mar-14	2-33	21'-26'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-16
24-Mar-14	2-38	19.5'-24.5'	50	~4.52:1	133	800.0	6.02	330	1014.2	0-18
24-Mar-14	2-39	20'-25'	50	~4.52:1	141	800.0	5.67	330	1014.2	0-5
24-Mar-14	2-40	19'-24'	50	~4.52:1	176	800.0	4.55	330	1014.2	0-25
24-Mar-14	2-42	27'-32'	50	~4.52:1	140	800.0	5.71	330	1014.2	0-20
25-Mar-14	2-4	27.5'-32.5'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-18
25-Mar-14	2-5	28'-33'	50	~4.52:1	133	800.0	6.02	330	1014.2	0-10
25-Mar-14	2-13	28'-33'	50	~4.52:1	138	800.0	5.80	330	1014.2	0-8
25-Mar-14	2-18	32.5'-37.5'	50	~4.52:1	137	800.0	5.84	330	1014.2	0-12
25-Mar-14	2-19	34.5'-39.5'	50	~4.52:1	138	800.0	5.80	330	1014.2	0-24
25-Mar-14	2-22	30.5'-35.5'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-20
25-Mar-14	2-23	33'-38'	50	~4.52:1	140	800.0	5.71	330	1014.2	0-14
25-Mar-14	2-26	32'-37'	50	~4.52:1	153	800.0	5.23	330	1014.2	0-16
25-Mar-14	2-27	32'-37'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-10
25-Mar-14	2-42	22'-27'	50	~4.52:1	130	800.0	6.15	330	1014.2	0-12
26-Mar-14	2-4	22.5'-27.5'	50	~4.52:1	142	800.0	5.63	330	1014.2	0-28
26-Mar-14	2-5	23'-28'	50	~4.52:1	153	800.0	5.23	330	1014.2	0-20
26-Mar-14	2-6	35'-40'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-12
26-Mar-14	2-13	23'-28'	50	~4.52:1	143	800.0	5.59	330	1014.2	0-24
26-Mar-14	2-18	27.5'-32.5'	50	~4.52:1	113	800.0	7.08	330	1014.2	0-10
26-Mar-14	2-19	29.5'-34.5'	50	~4.52:1	113	800.0	7.08	330	1014.2	0-8
26-Mar-14	2-20	39'-44'	50	~4.52:1	144	800.0	5.56	330	1014.2	0-22
26-Mar-14	2-23	28'-33'	50	~4.52:1	125	800.0	6.40	330	1014.2	0-6
26-Mar-14	2-26	27'-32'	50	~4.52:1	134	800.0	5.97	330	1014.2	0-12
26-Mar-14	2-42	17'-22'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-8
27-Mar-14	2-6	30'-35'	50	~4.52:1	142	800.0	5.63	330	1014.2	0-20
27-Mar-14	2-9	34.5'-39.5'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-12
27-Mar-14	2-10	38'-43'	50	~4.52:1	143	800.0	5.59	330	1014.2	0-10
27-Mar-14	2-20	34'-49'	50	~4.52:1	146	800.0	5.48	330	1014.2	0-18
27-Mar-14	2-23	23'-28'	50	~4.52:1	131	800.0	6.11	330	1014.2	0-18
27-Mar-14	2-26	22'-27'	50	~4.52:1	166	800.0	4.82	330	1014.2	0-26
27-Mar-14	2-27	27'-32'	50	~4.52:1	146	800.0	5.48	330	1014.2	0-20
27-Mar-14	2-28	32'-37'	50	~4.52:1	126	800.0	6.35	330	1014.2	0-8
27-Mar-14	2-29	32.5'-37.5'	50	~4.52:1	120	800.0	6.67	330	1014.2	0-6
27-Mar-14	2-30	36.5'-41.5'	50	~4.52:1	138	800.0	5.80	330	1014.2	0-13

Treatment Area 2 Injection Data Summary
Evor Phillips Leasing Company Superfund Site
Operable Unit 3 (OU3)
Old Bridge, New Jersey
ISOTEC #801870



Date Completed	Injection Point ID	Screen Interval (ft bgs)	Persulfate Concentration (g/L)	Base to Persulfate Molar Ratio	BASP Injection Time (mins)	BASP Volume (gal)	BASP Flow Rate (gpm)	Sodium Persulfate (lbs)	Sodium Hydroxide (lbs)	Maximum Well Head Pressure (psi)
27-Mar-14	2-6	25'-30'	50	~4.52:1	184	800.0	4.35	330	1014.2	0-55
27-Mar-14	2-9	29.5'-34.5'	50	~4.52:1	139	800.0	5.76	330	1014.2	0-14
27-Mar-14	2-10	33'-38'	50	~4.52:1	140	800.0	5.71	330	1014.2	0-8
27-Mar-14	2-18	22.5'-27.5'	50	~4.52:1	140	800.0	5.71	330	1014.2	0-34
27-Mar-14	2-19	24.5'-29.5'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-24
27-Mar-14	2-20	29-34'	50	~4.52:1	128	800.0	6.25	330	1014.2	0-16
27-Mar-14	2-22	25.5'-30.5'	50	~4.52:1	127	800.0	6.30	330	1014.2	0-8
27-Mar-14	2-28	27'-32'	50	~4.52:1	124	800.0	6.45	330	1014.2	0-6
27-Mar-14	2-29	27.5'-32.5'	50	~4.52:1	137	800.0	5.84	330	1014.2	0-20
27-Mar-14	2-30	31.5'-36.5'	50	~4.52:1	118	800.0	6.78	330	1014.2	0-5
31-Mar-14	2-9	24.5'-29.5'	50	~4.52:1	141	800.0	5.67	330	1014.2	0-25
31-Mar-14	2-10	28'-33'	50	~4.52:1	133	800.0	6.02	330	1014.2	0-25
31-Mar-14	2-22	20.5'-25.5'	50	~4.52:1	132	800.0	6.06	330	1014.2	0-28
31-Mar-14	2-27	22'-27'	50	~4.52:1	140	800.0	5.71	330	1014.2	0-30
31-Mar-14	2-28	22'-27'	50	~4.52:1	156	800.0	5.13	330	1014.2	0-10
31-Mar-14	2-29	22.5'-27.5'	50	~4.52:1	149	800.0	5.37	330	1014.2	0-35
31-Mar-14	2-30	26.5'-31.5'	50	~4.52:1	135	800.0	5.93	330	1014.2	0-15
Totals						100800.0	5.82	41580.0	127793.0	

Notes:

BASP = Base activated sodium persulfate solution.

g/L = Grams per liter.

Mins = Minutes.

Gal = Gallons.

GPM = Gallons per minute.

lbs = Pounds.

PSI = Pounds per square inch.

FT BGS = Feet below ground surface.

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 2
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond uS	ORP mV	pH	TDS mg/l	Temp. C.	DO mg/l	Persulfate mg/l	DTW ft bgs
MW-1	3/7/2014	3/7/14 10:20	10:20 AM	378	129	5.84	252	12.3	3.90	0.0	20.00
MW-1	3/12/2014	3/12/14 12:30	12:30 PM	329	201	5.70	216	16.5	4.89	0.0	19.70
MW-1	3/12/2014	3/12/14 13:30	1:30 PM	305	161	5.62	200	14.5	3.05	0.0	19.23
MW-1	3/12/2014	3/12/14 14:15	2:15 PM	311	34	6.10	204	14.9	4.24	0.0	19.13
MW-1	3/12/2014	3/12/14 15:10	3:10 PM	308	180	5.75	202	15.3	4.18	0.0	19.45
MW-1	3/12/2014	3/12/14 16:00	4:00 PM	88	225	13.19	129	14.6	5.68	5250.0	18.90
MW-1	3/12/2014	3/12/14 17:20	5:20 PM	25	111	12.94	24	13.7	8.09	5250.0	18.85
MW-1	3/13/2014	3/13/14 8:00	8:00 AM	3690	-7	12.03	2795	8.1	4.76	1125.0	20.17
MW-1	3/13/2014	3/13/14 13:30	1:30 PM	870	328	6.82	596	13.4	6.57	105.0	13.40
MW-1	3/13/2014	3/13/14 14:45	2:45 PM	NA	NA	6.62	NA	NA	NA	105.0	NA
MW-1 ¹	3/14/2014	3/14/14 7:45	7:45 AM	737	342	6.60	504	9.3	4.90	160.0	20.26
MW-1	3/14/2014	3/14/14 11:00	11:00 AM	7609	172	12.68	6147	10.3	3.36	1875.0	19.71
MW-1	3/14/2014	3/14/14 16:30	4:30 PM	10000	190	13.03	10000	13.4	6.25	5250.0	19.95
MW-1	3/17/2014	3/17/14 9:15	9:15 AM	10000	191	13.09	10000	10.3	5.28	5250.0	20.40
MW-1	3/18/2014	3/18/14 7:45	7:45 AM	10000	134	12.95	10000	9.8	7.39	5250.0	21.52
MW-1	3/20/2014	3/20/14 10:00	10:00 AM	10000	94	12.82	10000	14.8	3.52	2100.0	NA
MW-1	3/21/2014	3/21/14 10:00	10:00 AM	10000	137	12.79	10000	11.7	9.14	2625.0	NA
MW-1	3/24/2014	3/24/14 11:50	11:50 AM	10000	121	13.09	10000	11.6	5.56	5250.0	NA
MW-1	3/25/2014	3/25/14 9:50	9:50 AM	10000	209	13.21	10000	11.2	6.57	4200.0	NA
MW-1	3/26/2014	3/26/14 14:20	2:20 PM	10000	121	13.02	10000	12.1	8.78	1875.0	NA
MW-1	3/27/2014	3/27/14 13:21	1:21 PM	10000	145	12.72	10000	13.4	8.83	1575.0	NA
MW-1	3/28/2014	3/28/14 8:40	8:40 AM	10000	137	12.74	10000	11.7	10.44	3150.0	NA
MW-1	3/31/2014	3/31/14 12:15	12:15 PM	10000	79	12.57	10000	14.6	6.50	3150.0	NA
MW-1	4/1/2014	4/1/14 8:00	8:00 AM	10000	156	12.58	9065	12.6	8.40	1275.0	NA
MW-5	3/7/2014	3/7/14 11:17	11:17 AM	334	218	5.87	222	11.4	7.81	0.0	21.45
MW-5	3/7/2014	3/7/14 13:20	1:20 PM	351	187	5.90	233	13.9	10.28	0.0	20.90
MW-5	3/7/2014	3/7/14 14:00	2:00 PM	390	157	5.98	260	11.5	10.56	0.0	20.85
MW-5	3/7/2014	3/7/14 14:40	2:40 PM	434	92	5.61	293	12.1	5.17	0.0	20.85
MW-5	3/7/2014	3/7/14 15:05	3:05 PM	464	119	5.47	313	12.6	5.50	0.0	20.76
MW-5	3/7/2014	3/7/14 16:15	4:15 PM	453	146	5.40	307	11.7	6.36	0.0	21.26
MW-5	3/8/2014	3/8/14 8:30	8:30 AM	442	137	5.72	298	11.6	3.94	0.0	21.67
MW-5	3/9/2014	3/9/14 8:30	8:30 AM	440	138	5.71	296	11.8	2.07	0.0	21.66
MW-5	3/10/2014	3/10/14 9:00	9:00 AM	452	140	5.55	302	15.5	4.02	0.0	21.67
MW-5	3/10/2014	3/10/14 13:45	1:45 PM	436	139	5.27	293	13.8	4.33	0.0	21.58
MW-5	3/11/2014	3/11/14 8:00	8:00 AM	444	150	5.55	300	12.8	4.07	0.0	21.60
MW-5	3/11/2014	3/11/14 12:00	12:00 PM	445	137	5.54	300	14.8	5.13	0.0	21.11
MW-5	3/11/2014	3/11/14 15:00	3:00 PM	455	120	5.59	305	16.9	2.71	0.0	20.95
MW-5	3/11/2014	3/11/14 17:12	5:12 PM	464	151	5.46	309	16.8	3.77	0.0	21.05
MW-5	3/12/2014	3/12/14 8:00	8:00 AM	NA	NA	5.62	NA	NA	NA	0.0	21.56
MW-5	3/13/2014	3/13/14 8:30	8:30 AM	NA	NA	5.68	NA	NA	NA	0.0	NA
MW-5 ¹	3/14/2014	3/14/14 12:30	12:30 PM	NA	NA	5.83	NA	NA	NA	0.0	NA
MW-5	3/14/2014	3/14/14 15:30	3:30 PM	NA	NA	5.91	NA	NA	NA	0.0	NA
MW-5	3/18/2014	3/18/14 10:45	10:45 AM	408	121	5.73	274	12.1	6.85	0.0	21.52
MW-5	3/20/2014	3/20/14 9:00	9:00 AM	422	125	5.87	282	15.8	8.80	0.0	NA
MW-5	3/21/2014	3/21/14 9:00	9:00 AM	NA	NA	6.15	NA	NA	NA	0.0	NA
MW-5	3/24/2014	3/24/14 11:50	11:50 AM	338	54	7.34	225	10.8	7.44	0.0	NA
MW-5	3/25/2014	3/25/14 9:50	9:50 AM	326	55	7.51	215	11.1	6.53	0.0	NA
MW-5	3/26/2014	3/26/14 14:20	2:20 PM	388	55	7.04	259	12.2	8.60	0.0	NA
MW-5	3/27/2014	3/27/14 13:21	1:21 PM	507	17	7.32	344	12.5	6.46	0.0	NA
MW-5	3/28/2014	3/28/14 8:40	8:40 AM	1201	288	6.51	842	11.6	7.07	0.0	NA
MW-5	3/31/2014	3/28/14 12:15	12:15 PM	1624	239	6.34	1142	14.1	6.88	700.0	NA
MW-5	4/1/2014	4/1/14 8:00	8:00 AM	1505	237	7.48	1064	12.4	4.46	450.0	NA
MW-6	3/7/2014	3/7/14 10:20	10:20 AM	352	386	4.86	233	10.4	6.13	0.0	22.50
MW-6	3/12/2014	3/12/14 13:30	1:30 PM	354	325	4.73	232	16.7	4.47	4.0	22.10
MW-6	3/13/2014	3/13/14 8:00	8:00 AM	353	383	4.35	236	6.7	7.20	9.0	22.39
MW-6 ¹	3/17/2014	3/17/14 14:35	2:35 PM	367	447	4.76	244	12.4	4.17	0.0	22.40
MW-6	3/18/2014	3/18/14 11:50	11:50 AM	377	414	4.31	251	11.1	7.83	0.0	22.38
MW-6	3/20/2014	3/20/14 10:45	10:45 AM	529	463	4.12	357	13.7	8.85	0.0	NA
MW-6	3/21/2014	3/21/14 8:00	8:00 AM	7259	222	12.15	5808	12.2	8.81	1425.0	NA
MW-6	3/21/2014	3/21/14 12:15	12:15 PM	5292	155	12.00	4101	14.3	NA	1050.0	NA

Evor Phillips Superfund Site
Event I Groundwater Field Monitoring Data - Treatment Area 2
Old Bridge, New Jersey
ISOTEC Project #801870



Point	Date		Time	Cond	ORP	pH	TDS	Temp.	DO	Persulfate	DTW
				uS	mV		mg/l	C.	mg/l	mg/l	ft bgs
MW-6	3/24/2014	3/24/14 11:50	11:50 AM	1879	94	9.19	1338	12.2	9.28	450.0	NA
MW-6	3/25/2014	3/25/14 9:50	9:50 AM	1838	70	9.14	1306	11.1	6.37	375.0	NA
MW-6	3/26/2014	3/26/14 14:20	2:20 PM	1470	217	8.35	1034	11.6	5.84	275.0	NA
MW-6	3/27/2014	3/27/14 13:21	1:21 PM	917	48	6.99	635	12.2	7.41	95.0	NA
MW-6	3/28/2014	3/28/14 8:40	8:40 AM	654	459	6.52	445	11.7	8.60	21.0	NA
MW-6	3/31/2014	3/31/14 12:15	12:15 PM	10000	197	12.88	10000	13.8	7.08	5250.0	NA
MW-6	4/1/2014	4/1/14 8:00	8:00 AM	10000	148	12.66	10000	11.6	5.34	5250.0	NA
MW-10S	3/21/2014	3/21/14 10:00	10:00 AM	NA	NA	5.75	NA	NA	NA	0.0	NA
MW-10S	3/26/2014	3/26/14 14:20	2:20 PM	93	378	6.49	59	11.8	8.27	7.0	NA
MW-10S	3/27/2014	3/27/14 13:21	1:21 PM	99	147	6.01	63	NA	8.80	14.0	NA
MW-10S	3/28/2014	3/28/14 8:40	8:40 AM	116	345	7.84	74	12.3	8.13	18.0	NA
MW-10S	3/31/2014	3/31/14 12:15	12:15 PM	10000	279	6.20	10000	13.2	8.40	14.0	NA
MW-10S	4/1/2014	4/1/14 8:00	8:00 AM	123	216	6.33	10000	11.4	10.02	12.0	NA
PZ-1S	3/21/2014	3/21/14 10:00	10:00 AM	NA	NA	6.16	NA	NA	NA	0.0	NA
PZ-1S	3/26/2014	3/26/14 14:20	2:20 PM	10000	54	13.00	10000	12.2	5.53	2625.0	NA
PZ-1S	3/27/2014	3/27/14 13:21	1:21 PM	10000	0	12.68	10000	13.9	6.77	2625.0	NA
PZ-1S	3/28/2014	3/28/14 8:40	8:40 AM	10000	166	12.57	10000	13.1	6.54	2625.0	NA
PZ-1S	3/31/2014	3/31/14 12:15	12:15 PM	10000	203	12.37	10000	14.5	6.78	3375.0	NA
PZ-1S	4/1/2014	4/1/14 8:00	8:00 AM	4189	213	11.72	3185	13.3	7.75	1050.0	NA

Notes:

ft bgs = feet below ground surface

uS = micro siemens

mV = milli volts

mg/l = milligrams per liter

C = degree Celsius

NA = not analyzed

DTW = Depth to water

Conductivity and TDS values represented as 10,000 indicate value greater than that number (above the measurement capability of the testing instrument).

1. Process monitoring methods switched to weighted bailers/peristaltic pump

DO = Dissolved oxygen

TDS = Total dissolved solids

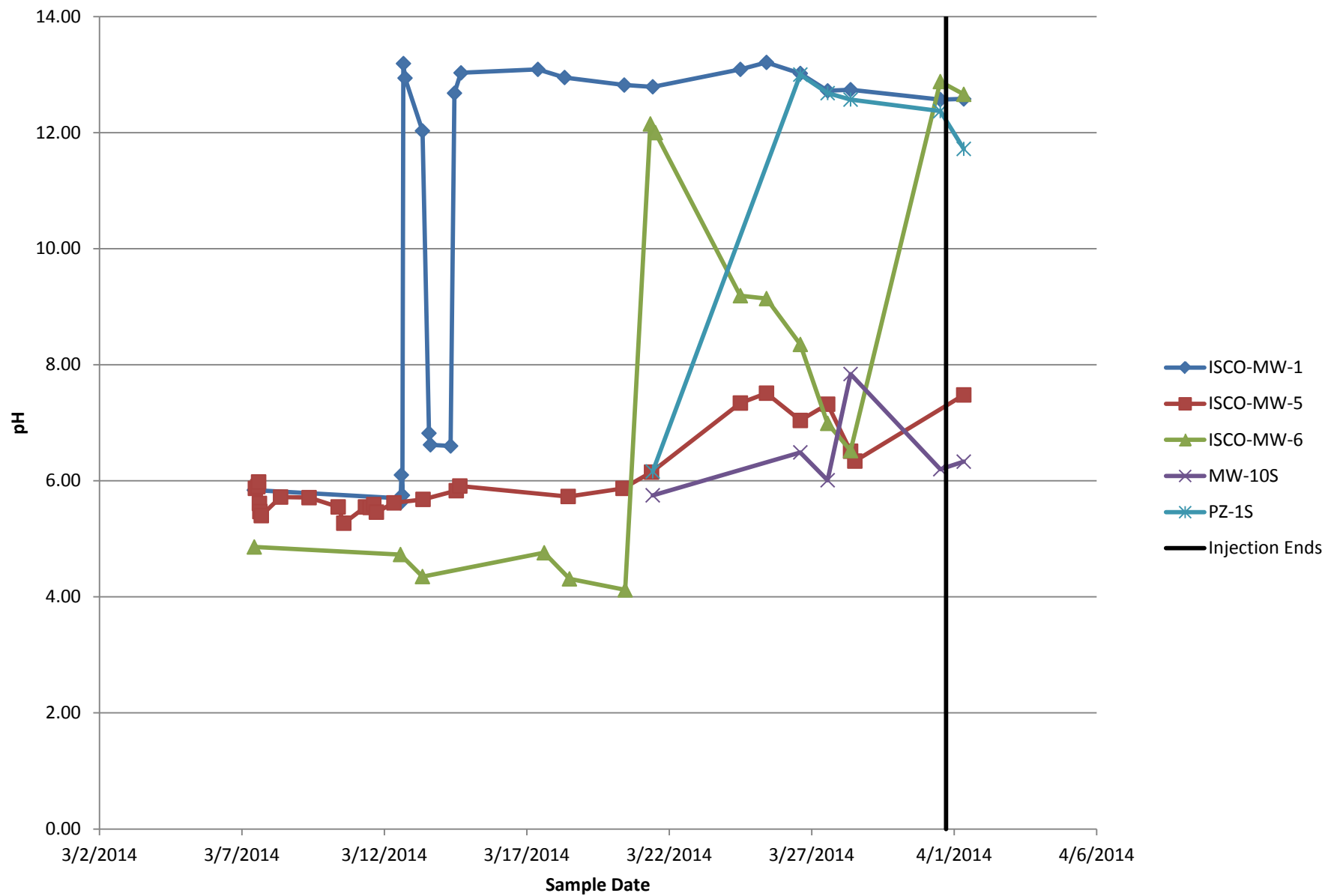
ORP = Redox Potential

Cond = Conductivity

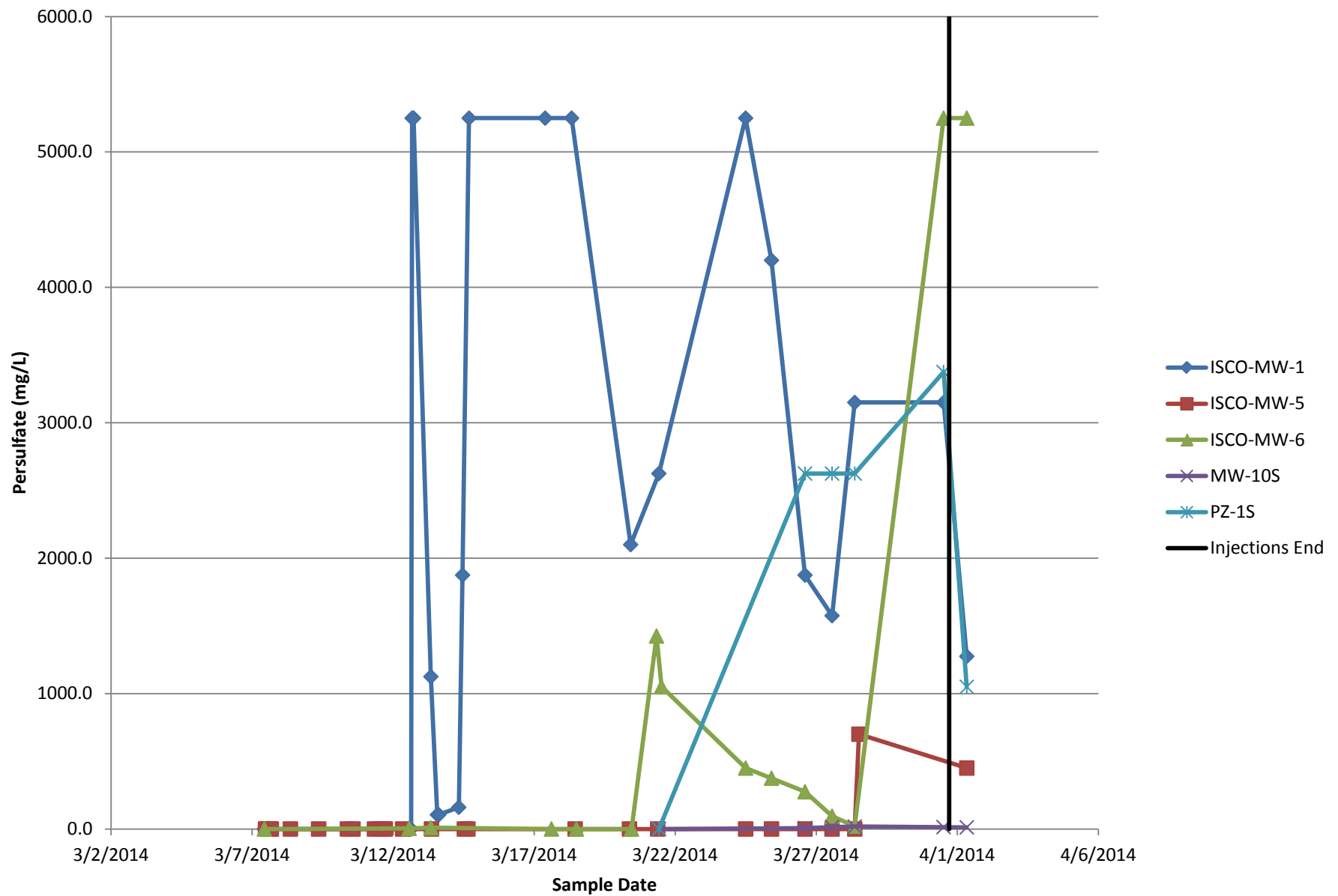
Persulfate concentrations represented as 5,250 mg/l

indicate concentration greater than that number as this was the highest dilution factor utilized when determining persulfate concentration.

Treatment Area 2 - pH



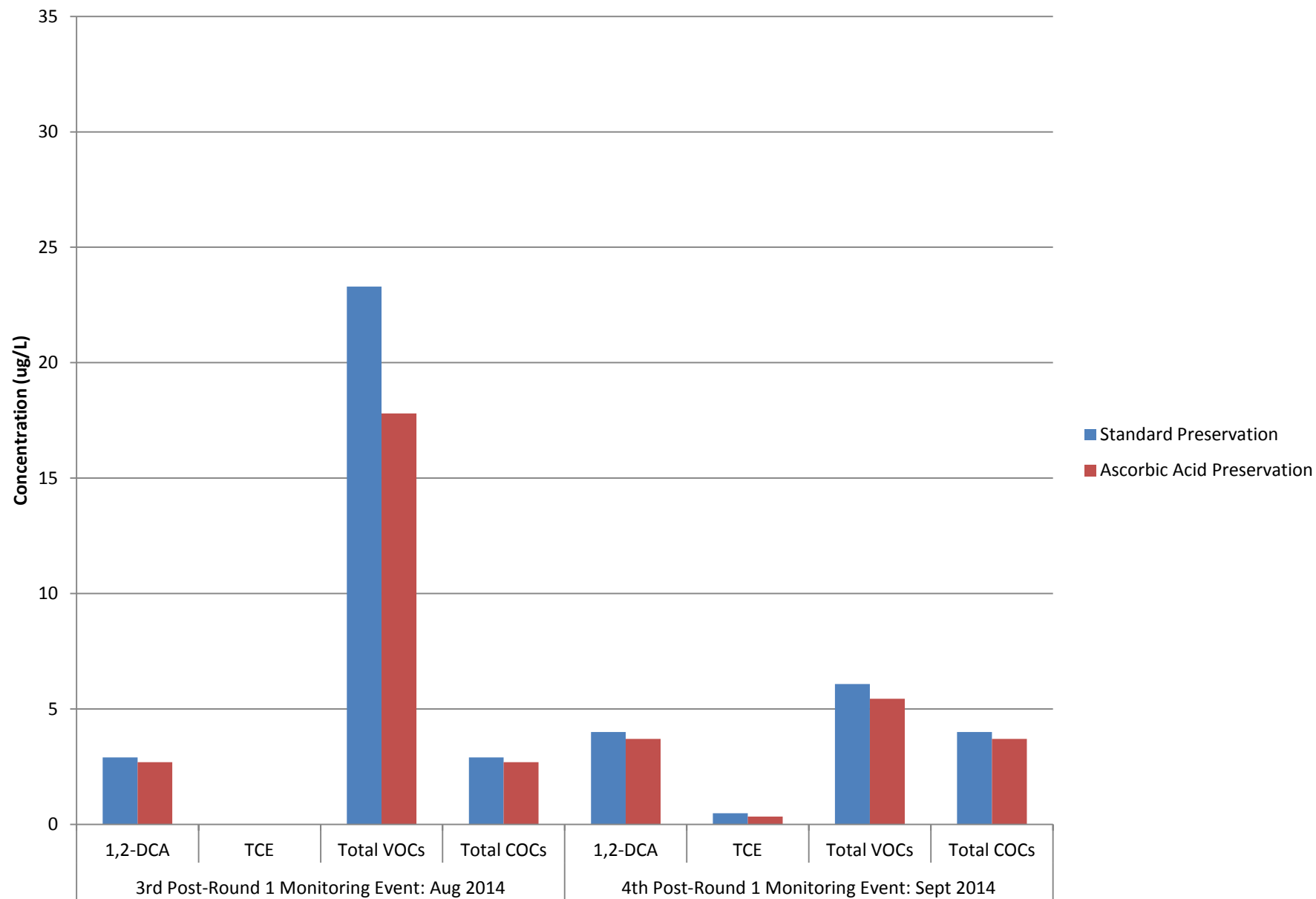
Treatment Area 2 - Persulfate



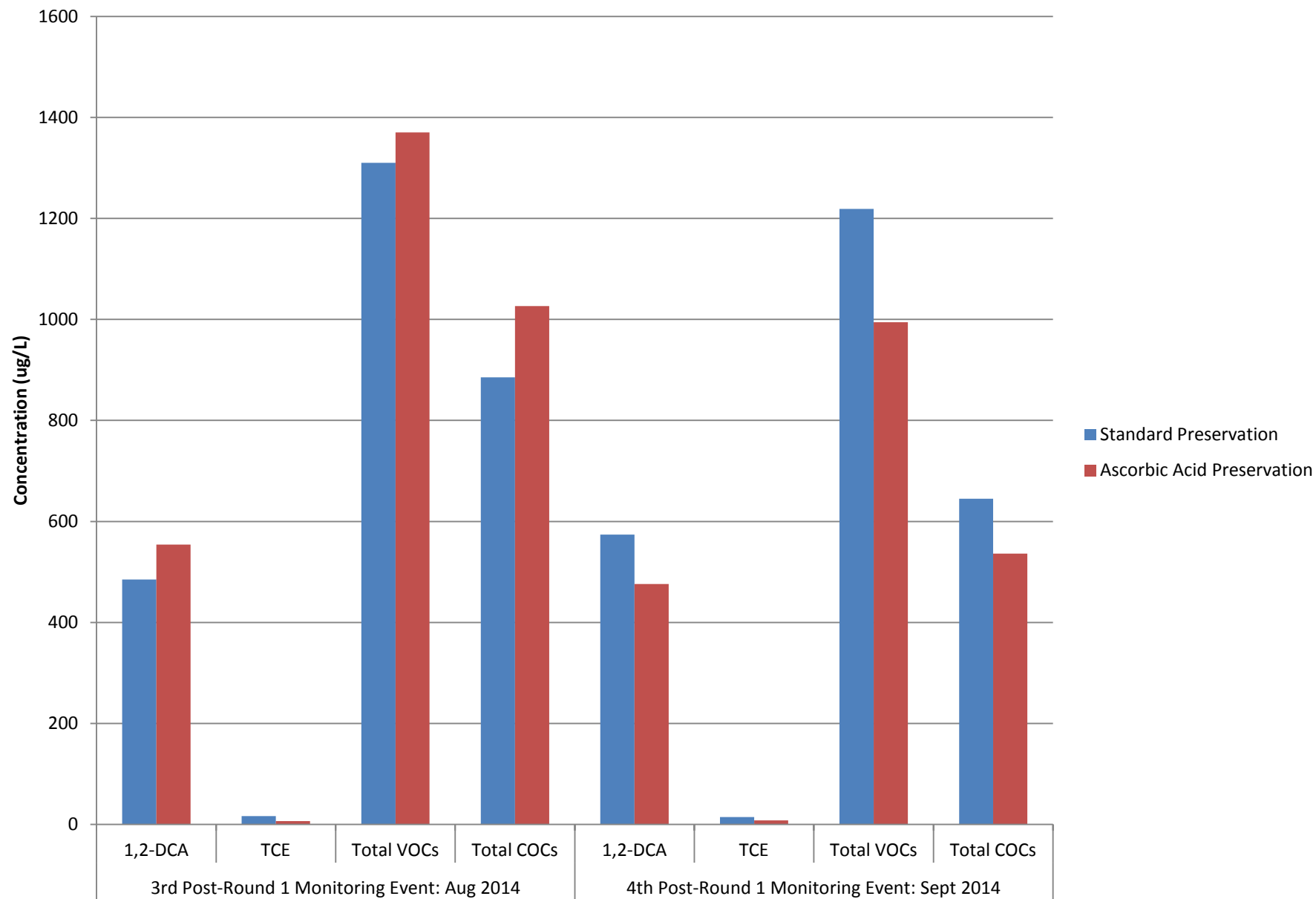
*Attachment 7:
Groundwater Low-Flow
Sampling Logs*

*Attachment 8:
Ascorbic Acid Preservation
Comparison Graphs*

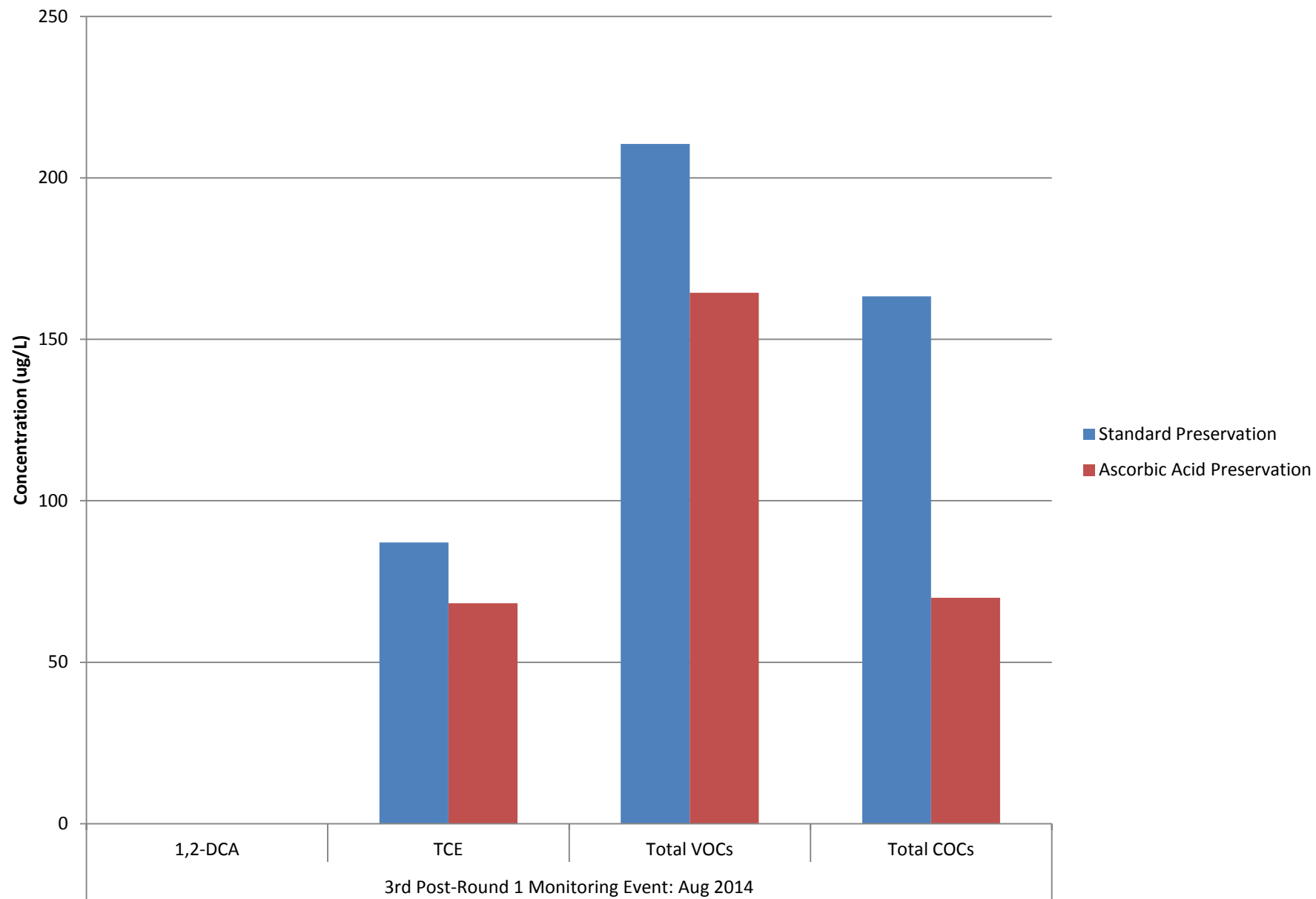
ISCO-MW-1



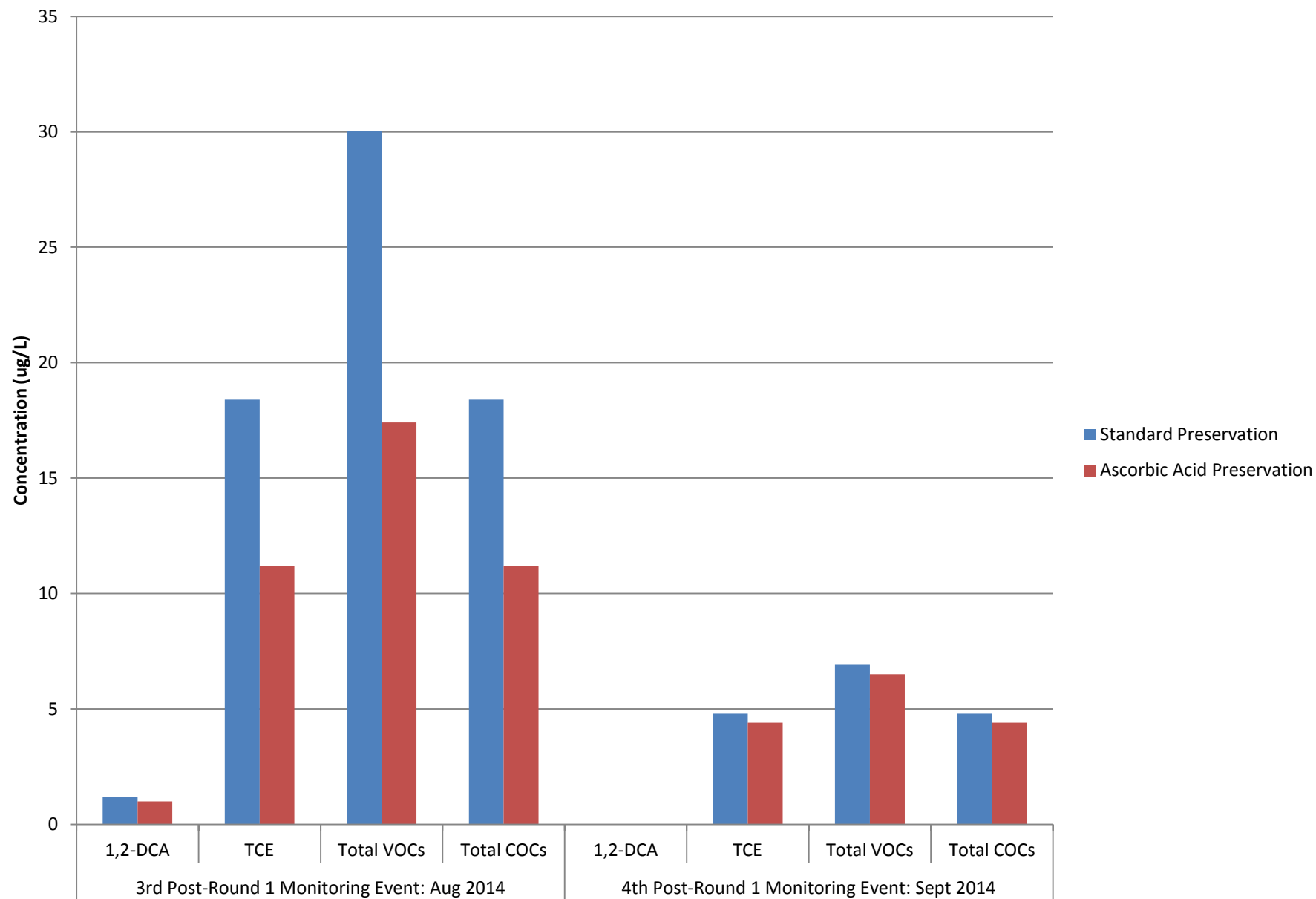
ISCO-MW-2



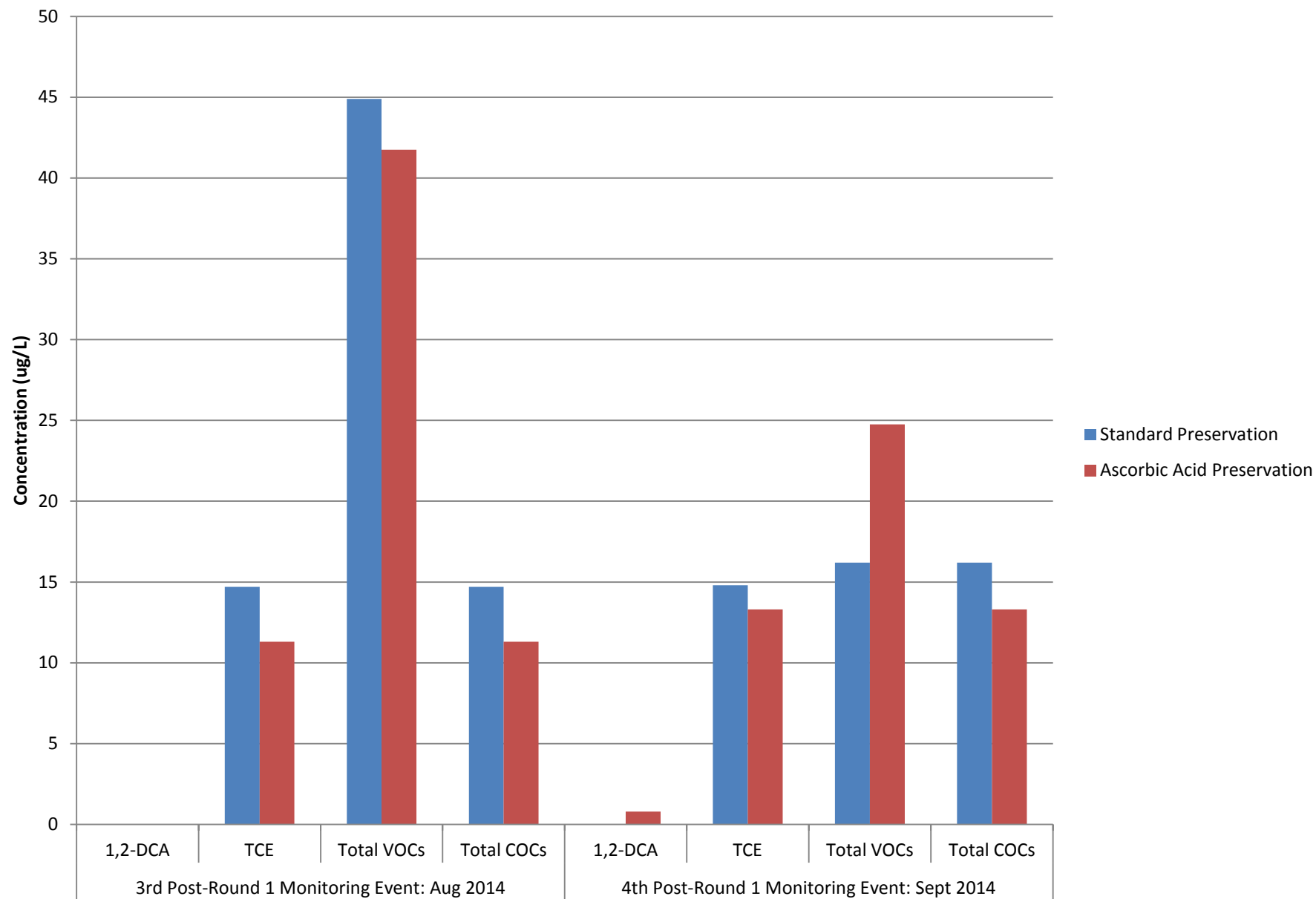
ISCO-MW-3



ISCO-MW-5

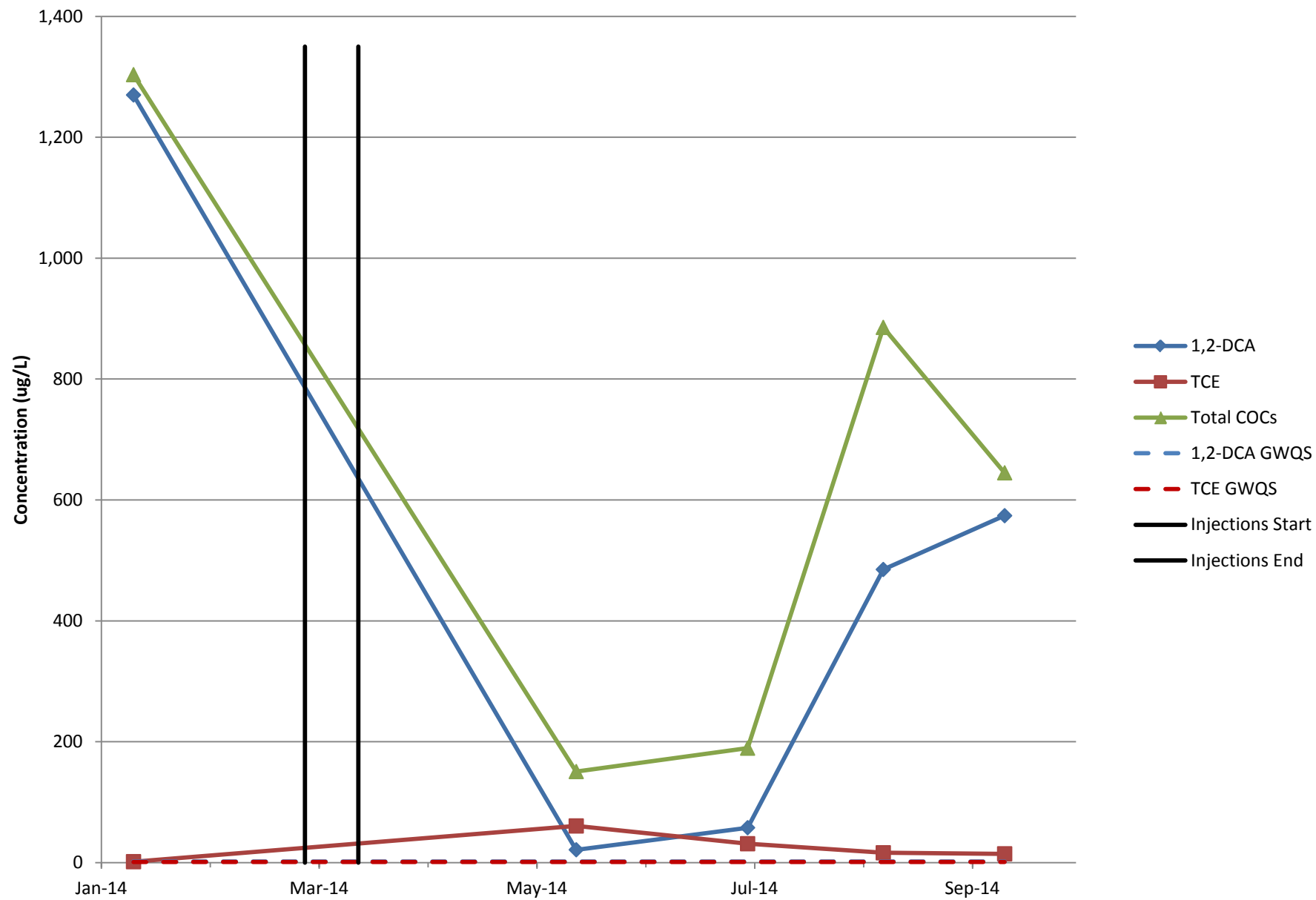


ISCO-MW-9

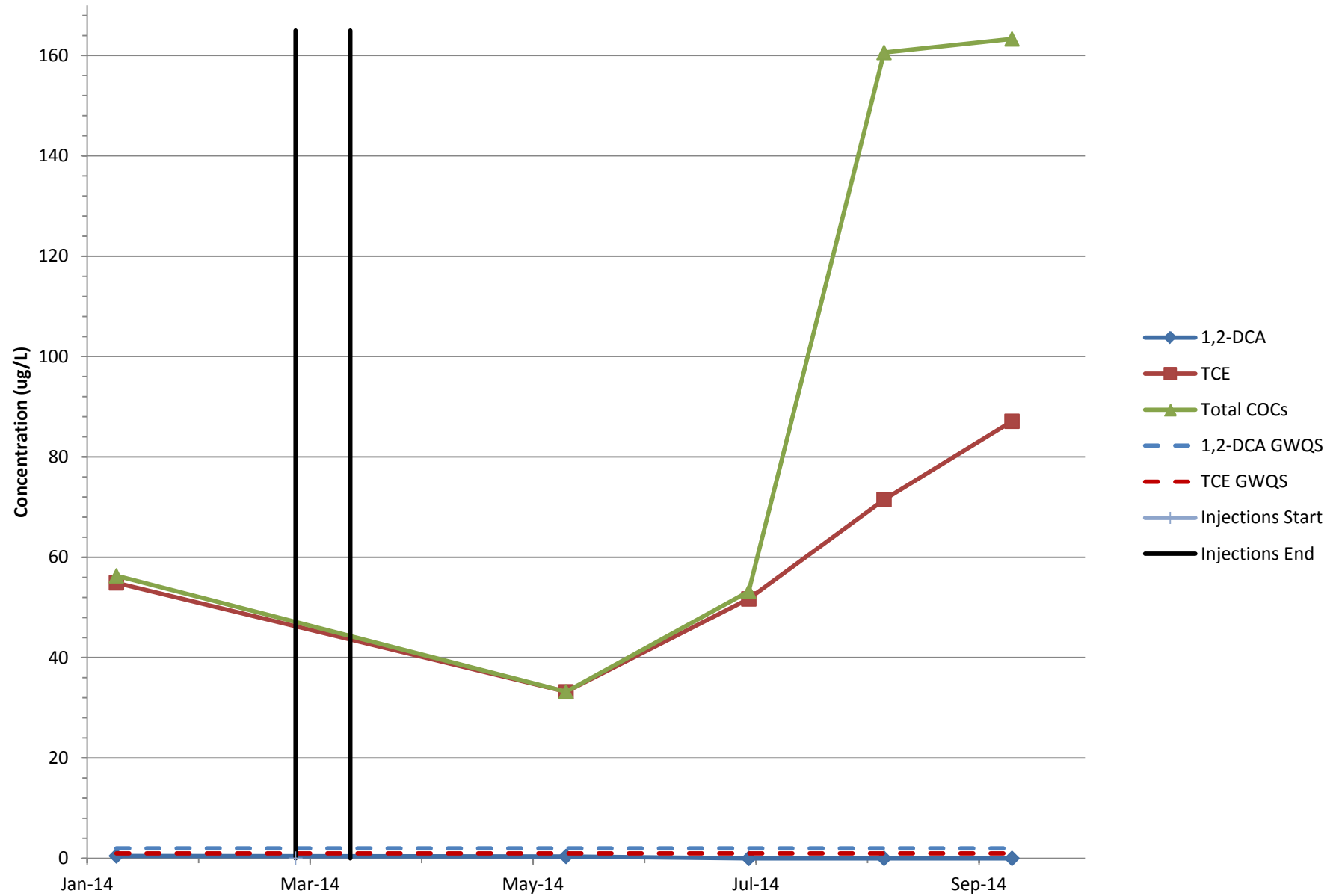


*Attachment 9:
Groundwater Sampling
Results Trend Graphs*

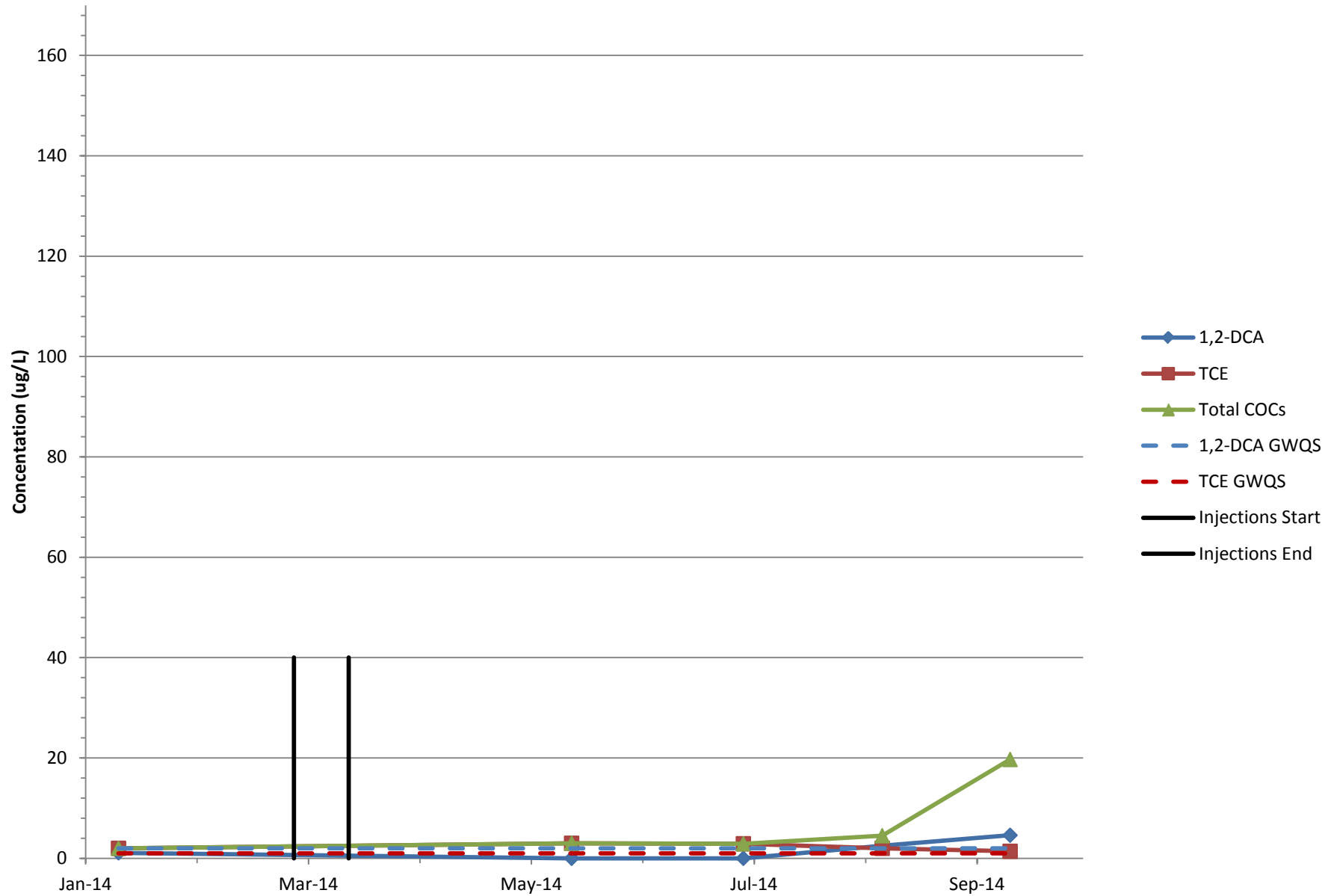
ISCO-MW-2



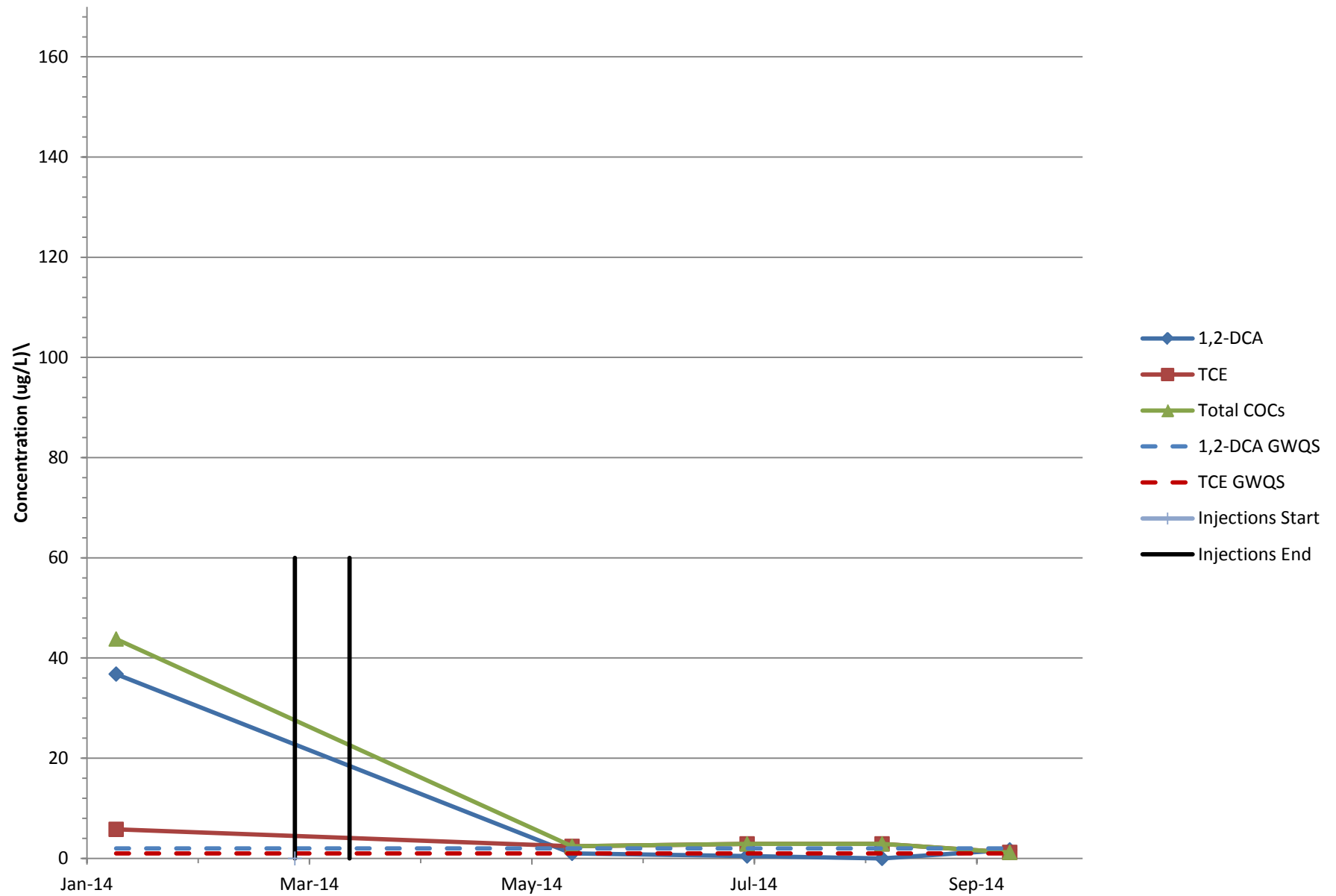
ISCO-MW-3



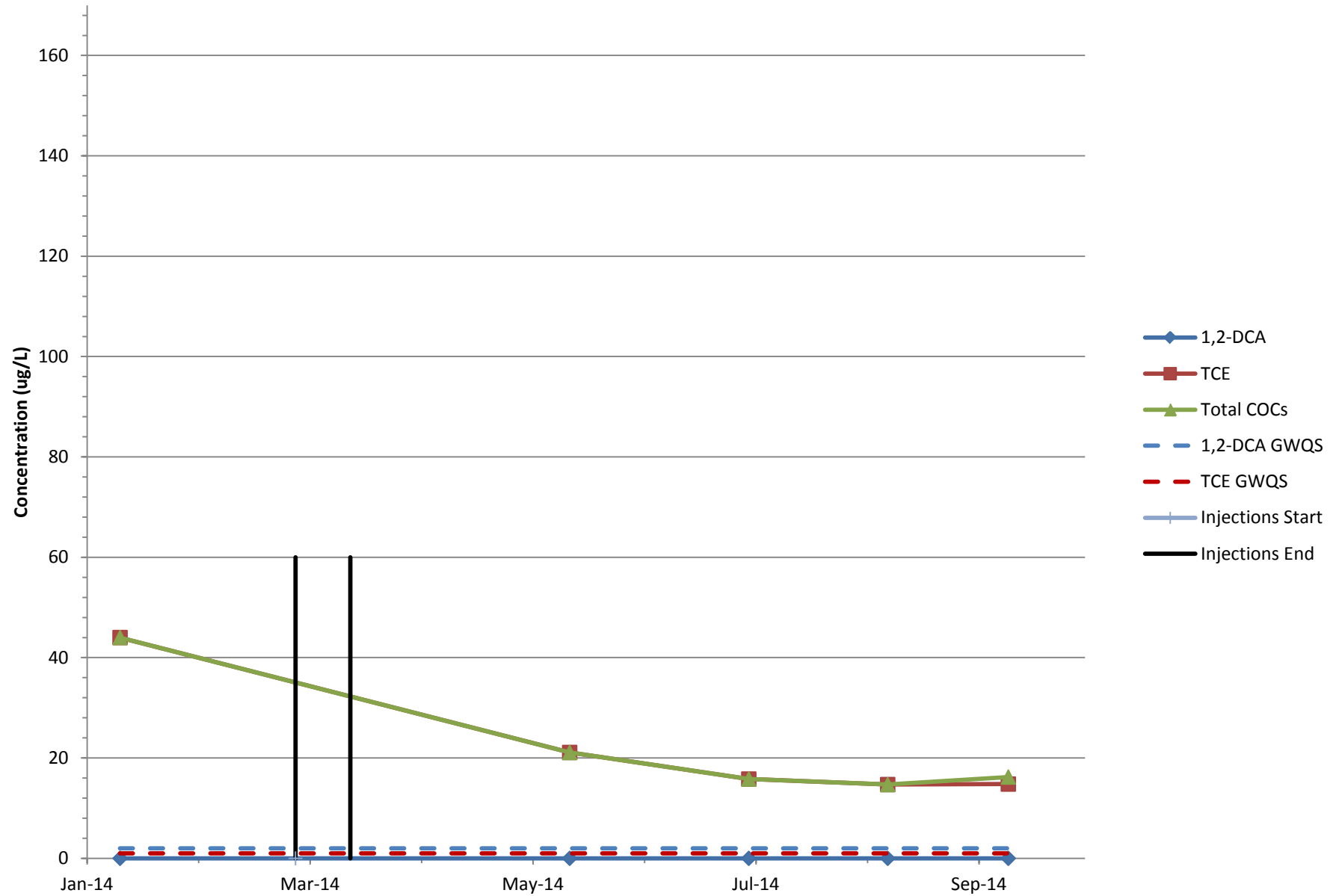
ISCO-MW-7



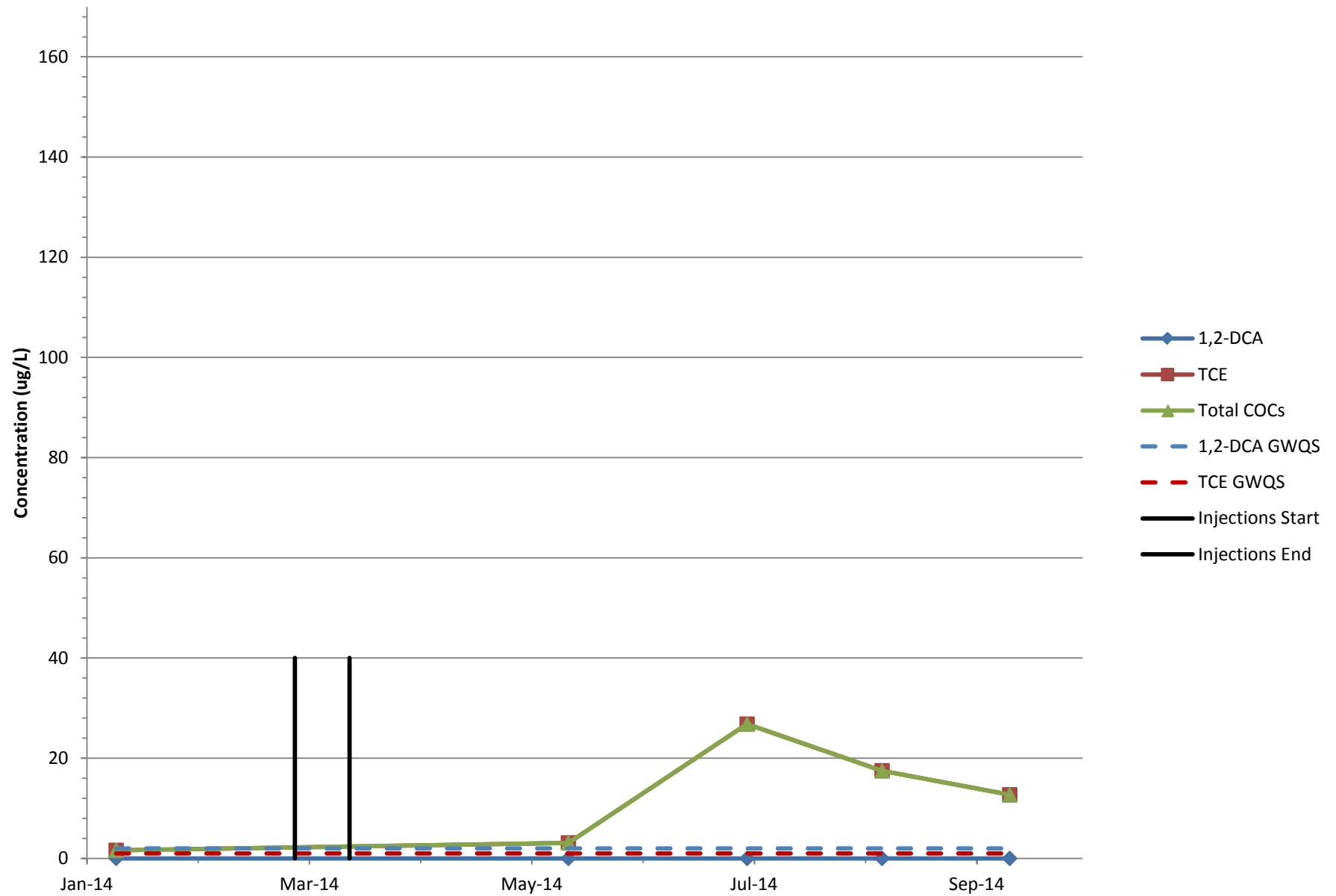
ISCO-MW-8



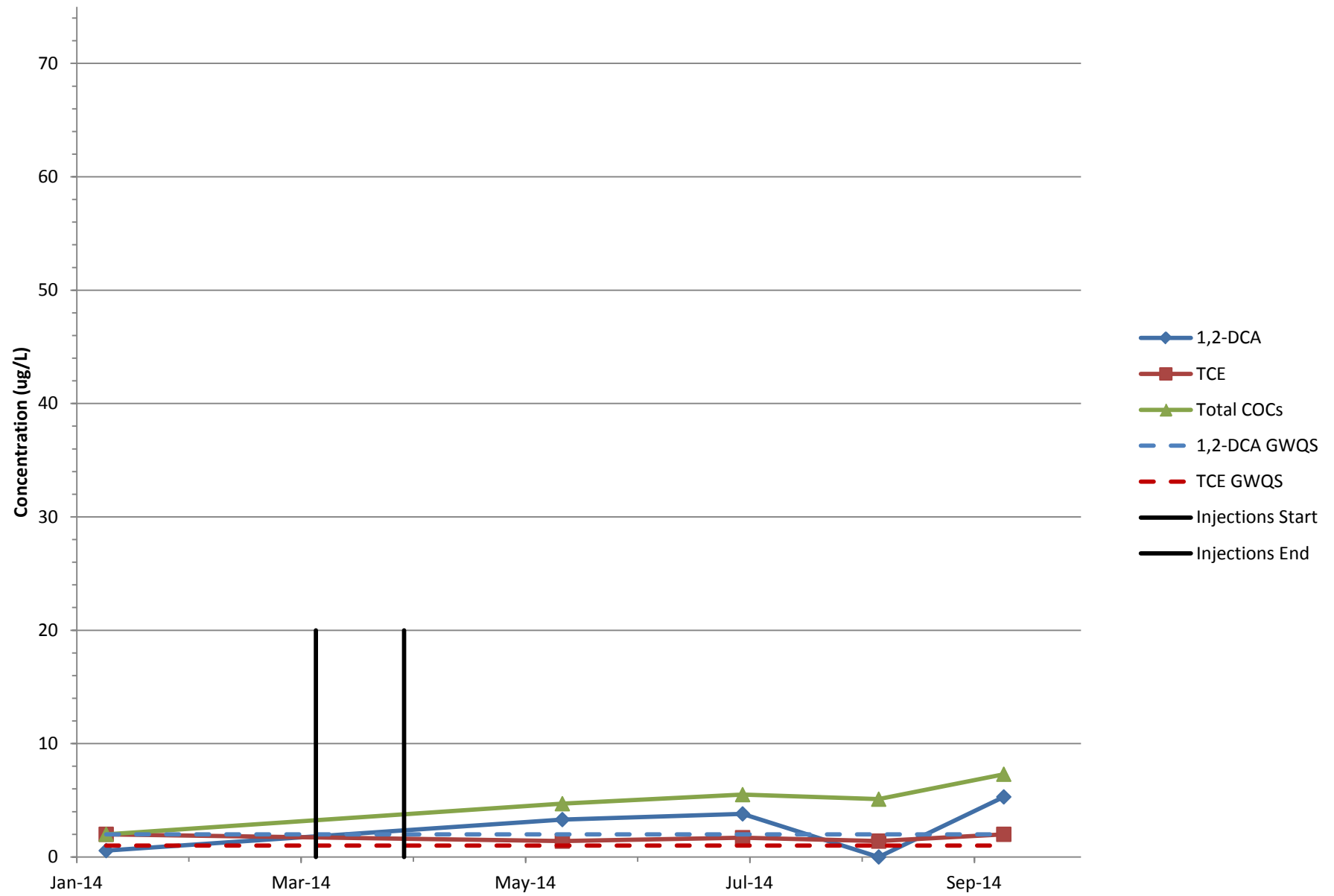
ISCO-MW-9



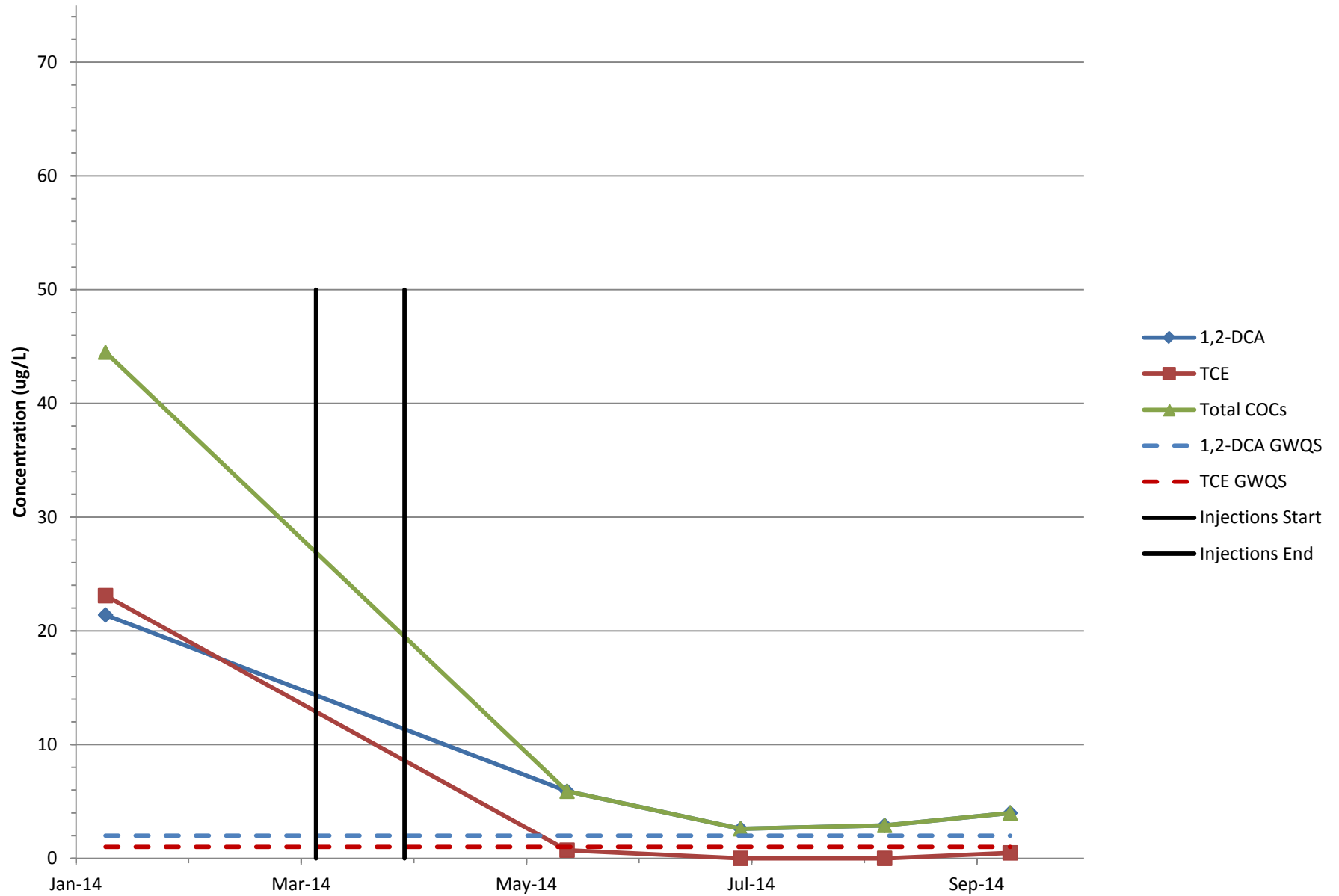
IW1-BT-2



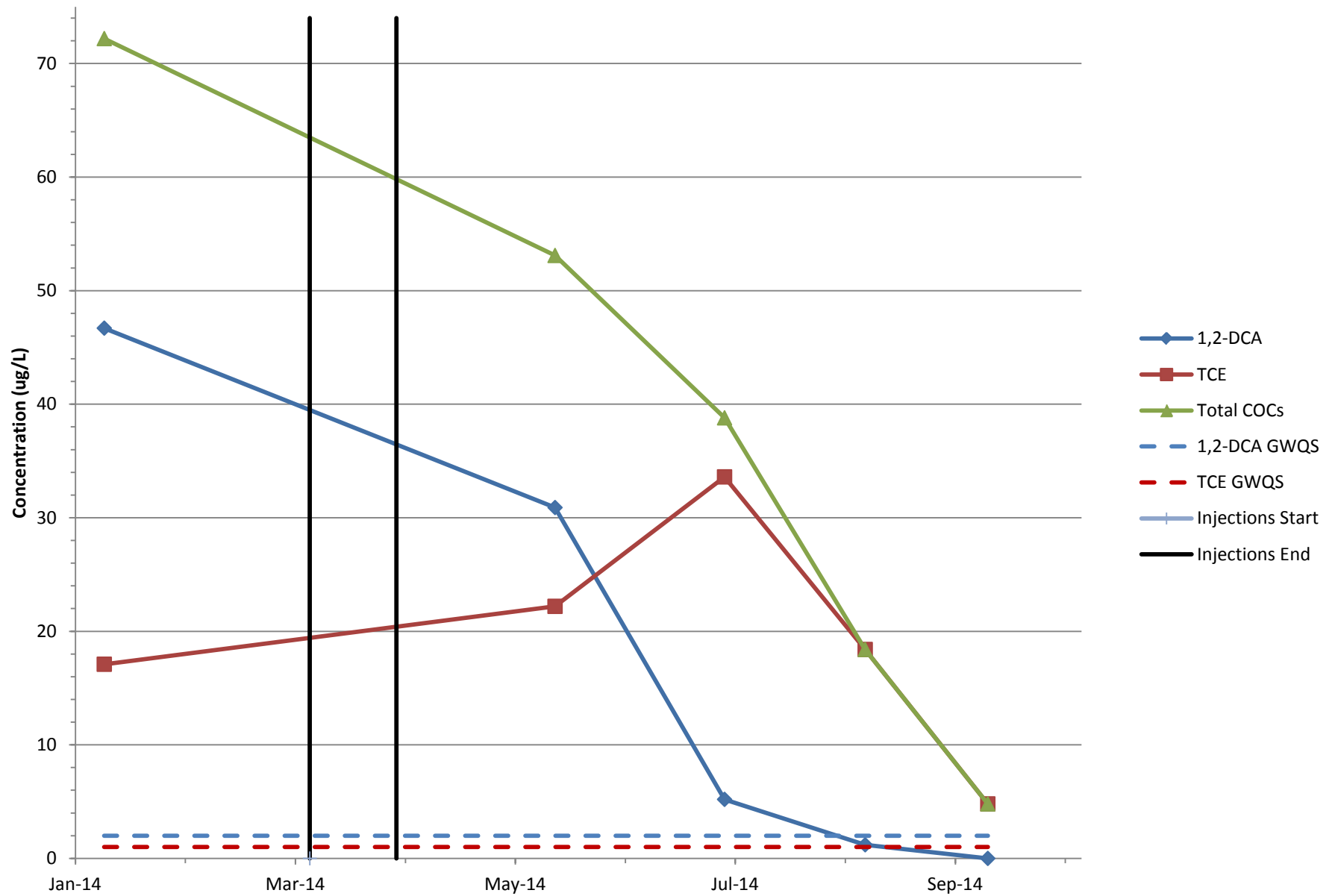
PZ-1S



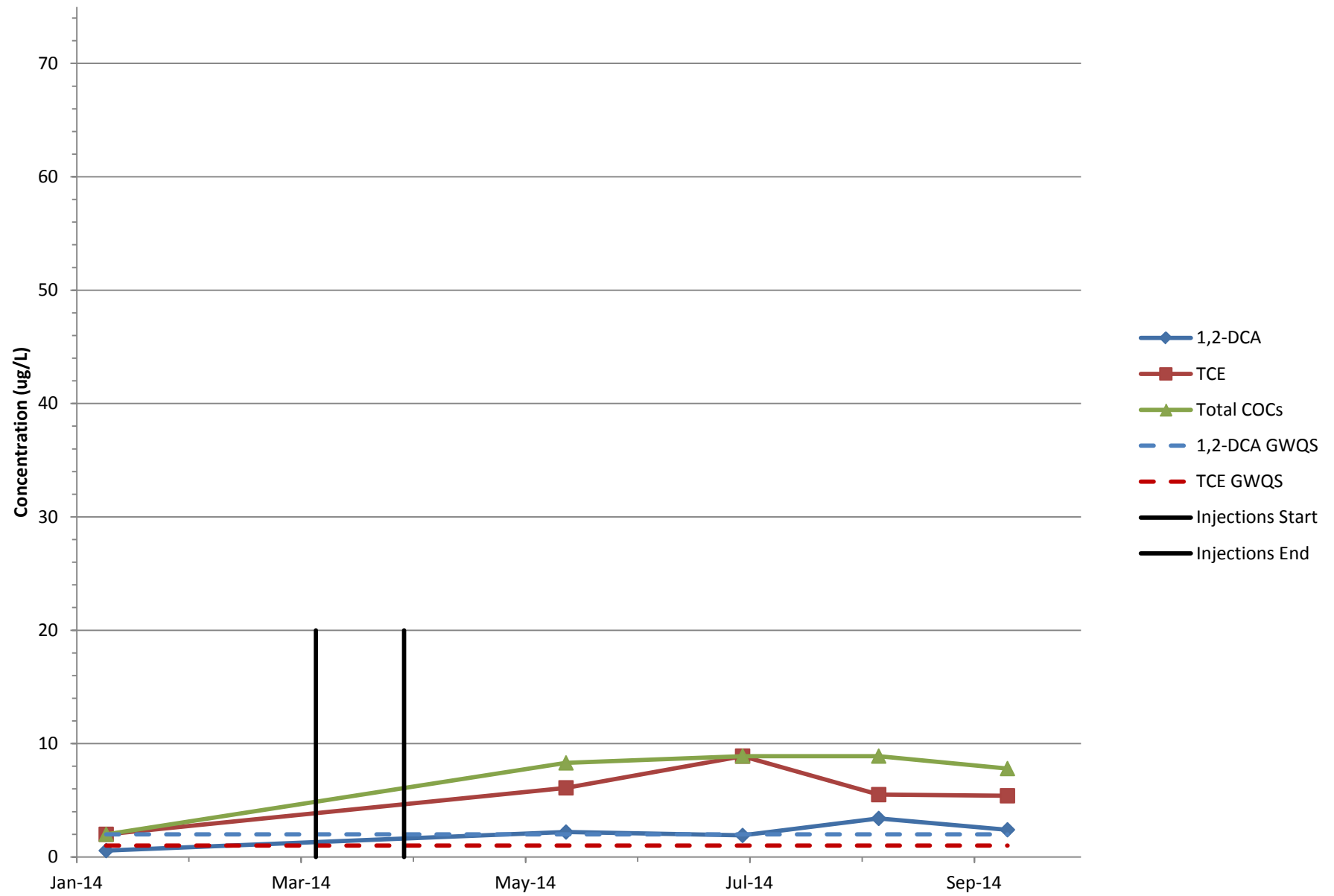
ISCO-MW-1



ISCO-MW-5



ISCO-MW-6



*Attachment 10:
Groundwater Elevation
Contour Maps*

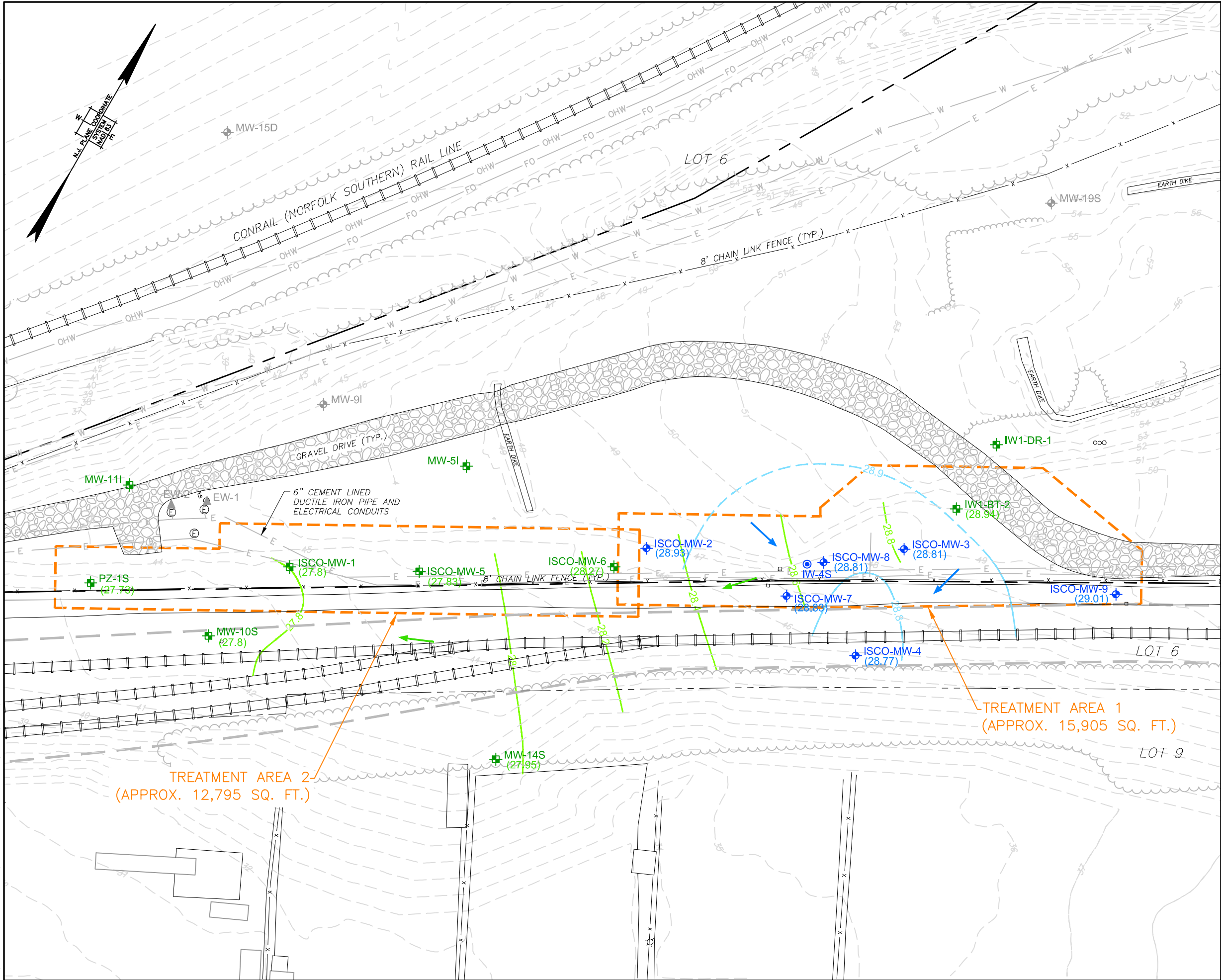


FIGURE 1

LEGEND

- PROPERTY LINE
- RAIL LINE
- FOULING/OBSTRUCTION LIMIT
- ISCO TREATMENT AREA
- INJECTION & EXTRACTION WELLS (NOT CURRENTLY IN USE)
- MONITORING WELL (NOT CURRENTLY IN USE)
- TREATMENT AREA 1 (PERCHED GROUNDWATER) MONITORING WELL
- TREATMENT AREA 2 (SHALLOW GROUNDWATER) MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION
- GENERALIZED GROUNDWATER FLOW DIRECTION

EVOR PHILLIPS
LEASING COMPANY SITE
OPERABLE UNIT 3 (OU3)

GROUNDWATER
CONTOUR MAP
ROUND 1
(MAY 12, 2014)



FILE NO. 19726.51308
OCTOBER 2014



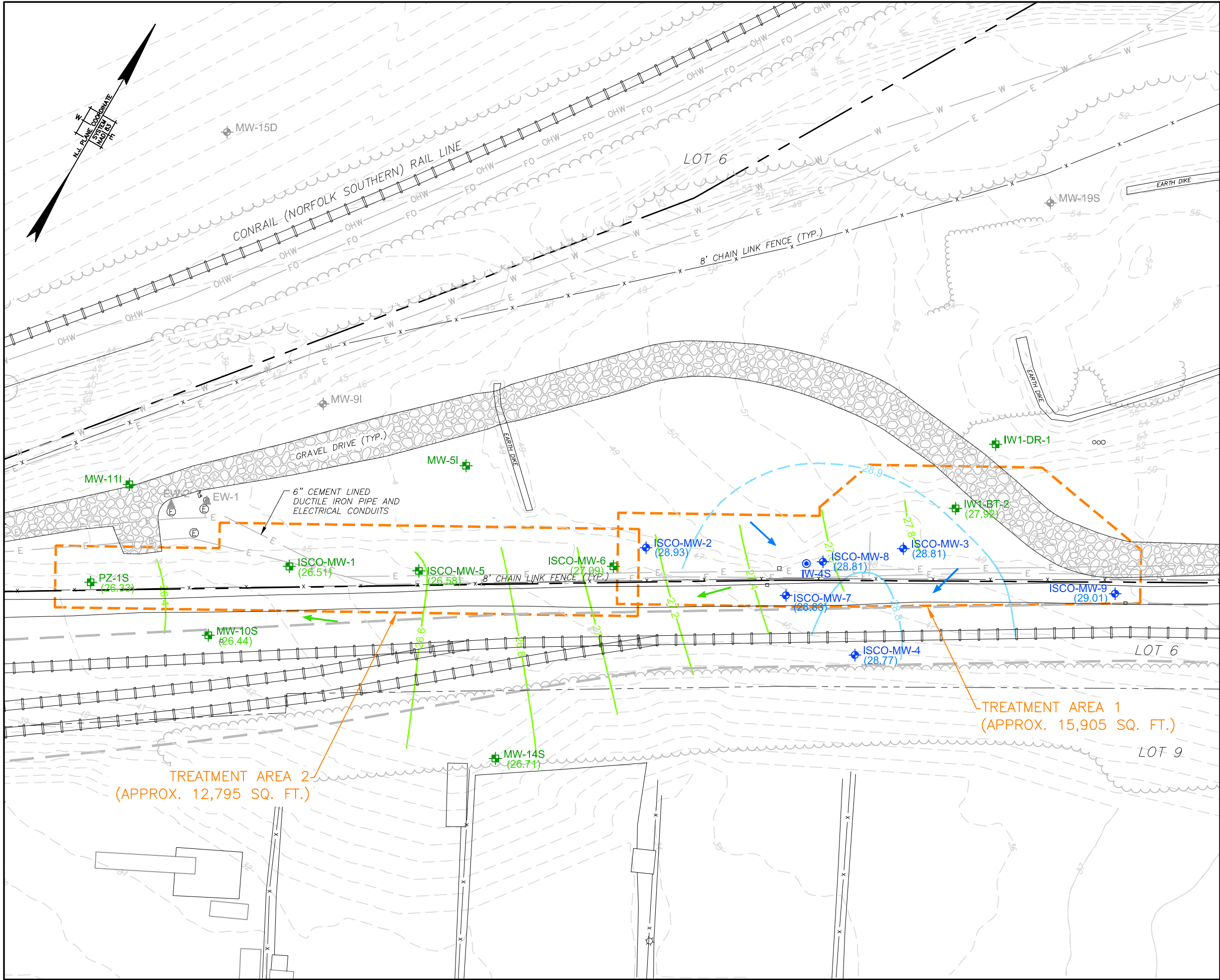


FIGURE 2

LEGEND

- PROPERTY LINE
- RAIL LINE
- FOULING/OBSTRUCTION LIMIT
- ISCO TREATMENT AREA
- INJECTION & EXTRACTION WELLS (NOT CURRENTLY IN USE)
- MONITORING WELL (NOT CURRENTLY IN USE)
- TREATMENT AREA 1 (PERCHED GROUNDWATER) MONITORING WELL
- TREATMENT AREA 2 (SHALLOW GROUNDWATER) MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION (25.21)
- GENERALIZED GROUNDWATER FLOW DIRECTION

EVOR PHILLIPS
LEASING COMPANY SITE
OPERABLE UNIT 3 (OU3)

GROUNDWATER
CONTOUR MAP
ROUND 2
(JUNE 30, 2014)



FILE NO. 19726.51308
OCTOBER 2014



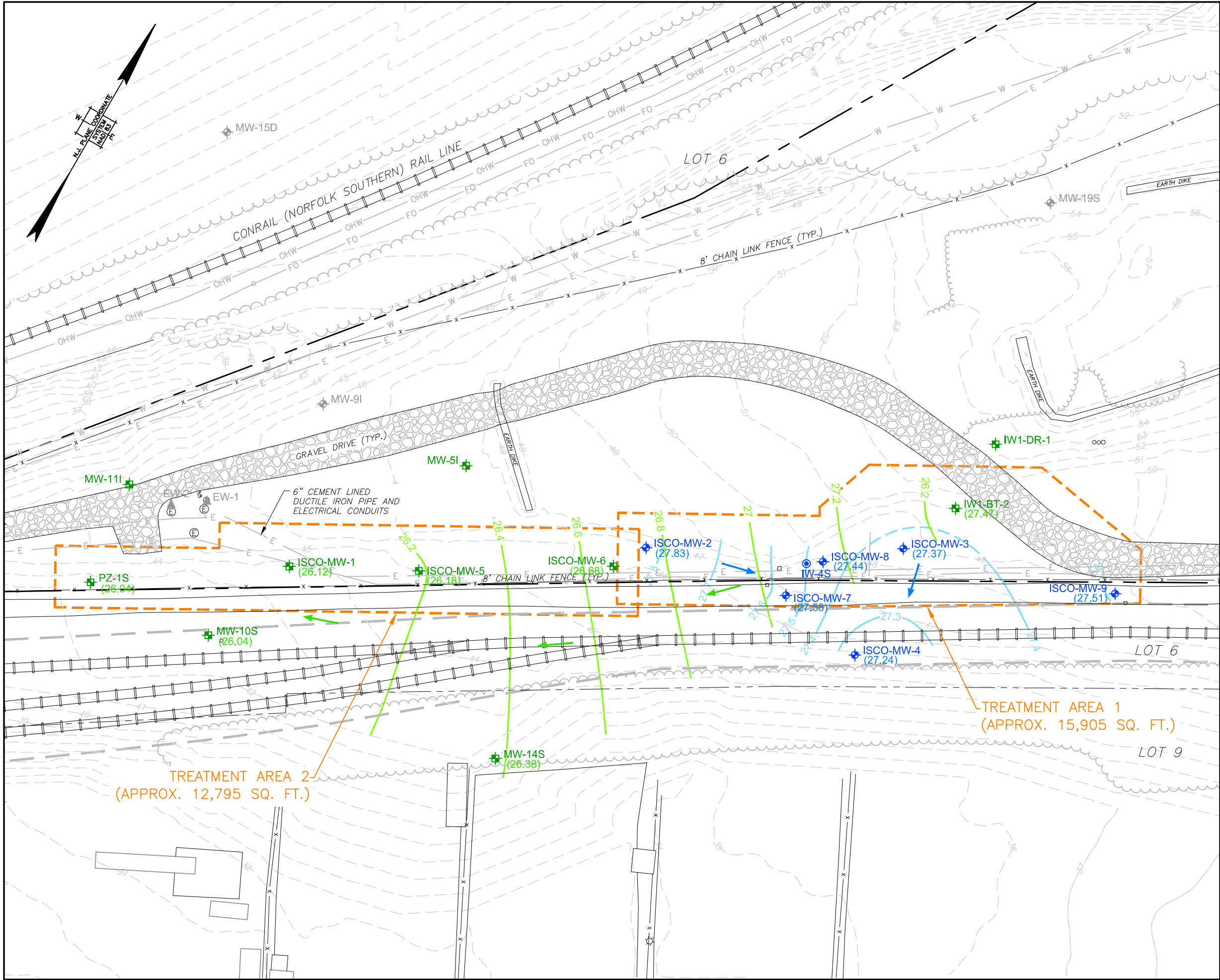


FIGURE 3

LEGEND

- PROPERTY LINE
- RAIL LINE
- FOULING/OBSTRUCTION LIMIT
- ISCO TREATMENT AREA
- INJECTION & EXTRACTION WELLS (NOT CURRENTLY IN USE)
- MONITORING WELL (NOT CURRENTLY IN USE)
- TREATMENT AREA 1 (PERCHED GROUNDWATER) MONITORING WELL
- TREATMENT AREA 2 (SHALLOW GROUNDWATER) MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION (25.21)
- GENERALIZED GROUNDWATER FLOW DIRECTION

EVOR PHILLIPS
LEASING COMPANY SITE
OPERABLE UNIT 3 (OU3)

GROUNDWATER
CONTOUR MAP
ROUND 3
(AUGUST 7, 2014)

1"=50' 50 0 50

FILE NO. 19726.51308
OCTOBER 2014



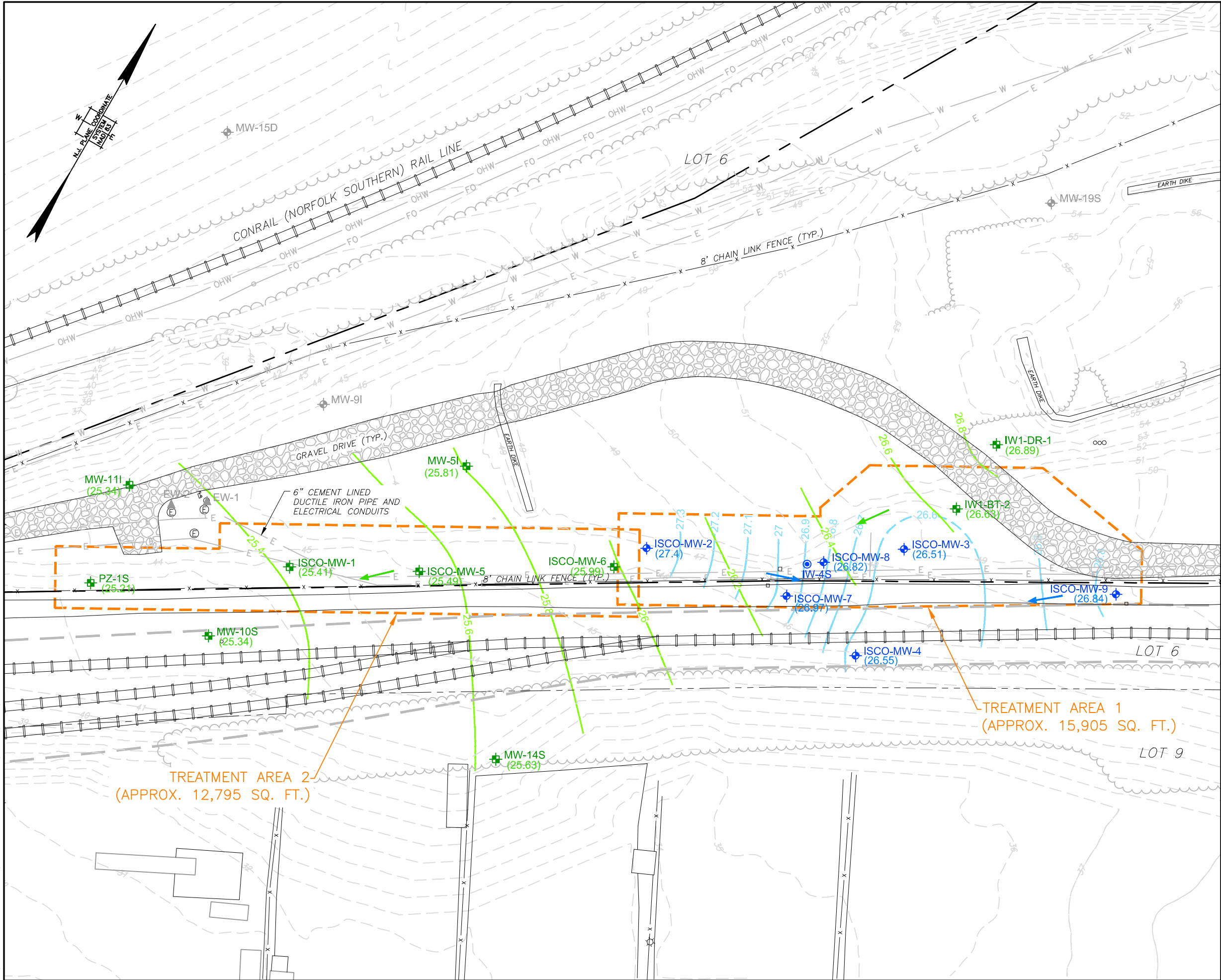


FIGURE 4

LEGEND

- PROPERTY LINE
- RAIL LINE
- FOULING/OBSTRUCTION LIMIT
- ISCO TREATMENT AREA
- INJECTION & EXTRACTION WELLS (NOT CURRENTLY IN USE)
- MONITORING WELL (NOT CURRENTLY IN USE)
- TREATMENT AREA 1 (PERCHED GROUNDWATER) MONITORING WELL
- TREATMENT AREA 2 (SHALLOW GROUNDWATER) MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION (25.21)
- GENERALIZED GROUNDWATER FLOW DIRECTION

EVOR PHILLIPS
LEASING COMPANY SITE
OPERABLE UNIT 3 (OU3)

GROUNDWATER
CONTOUR MAP
ROUND 4
(SEPTEMBER 7, 2014)

1"=50' 50 0 50

FILE NO. 19726.51308
OCTOBER 2014



*Attachment 11:
Data Validation Results*

TO: J. Levesque
FROM: K. Storne
RE: Evor Phillips Leasing Company (EPLC) Superfund Site, OU3
 Site Groundwater Performance Monitoring, Data
 Validation Report
FILE: 19726/51308.005.100, 51308.005.200, 51308.005.300,
 51308.005.400
DATE: November 10, 2014

This report presents the data validation results performed for environmental samples collected in May, June/July, August and September for the, Post-Injection Round 1 Performance Monitoring Events #1, #2, #3 and #4 as part of the OU3-Site Groundwater Remedial Action at the Evor Phillips Leasing Company (EPLC) Superfund Site in Old Bridge Township, New Jersey.

SAMPLE AND VALIDATION SUMMARY

The environmental samples collected for this effort consisted of groundwater samples, matrix spike/ matrix spike duplicate, field duplicate, field blanks and trip blanks. Samples were analyzed by Accutest Laboratories of Dayton, New Jersey (Accutest New Jersey).

The laboratory utilized the methods listed in Table 1 for sample analyses.

Table 1. Analytical methods and references		
Parameter	Methods	Reference
VOCs	USEPA Methods 8000C/5030B/8260B	1
Metals	USEPA Methods 3010A/6010C	2
Sulfate	USEPA Method 9056A/300.0	2/4
TDS	SM20 2540C	3
Note: VOCs indicates volatile organic compounds. TDS indicates total dissolved solids.		
1. United States Environmental Protection Agency (USEPA). 2004. <i>Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846</i> , 3rd Edition, Update IIIB. Washington D.C. 2. USEPA. 2007. <i>Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846</i> , 3rd Edition, Update IV. Washington D.C. 3. AWWA, APHA, WEF. 1998. <i>Standard Methods for the Examination of Water and Wastewater</i> , 20th Edition. Washington, D.C. 4. USEPA. 1993a. <i>Methods for the Determination of Inorganic Substances in Environmental Samples</i> , EPA-600/R-93/100. Washington, D.C.		

The laboratory data packages included summary forms for quality control analysis and supportive raw data.

The samples submitted for data review are summarized in the attached Table 2. Table 3 presents the specific data validation approach applied to data generated. Table 4 presents the Laboratory quality assurance/quality control (QA/QC) analyses definitions.

In accordance with the approved RDR/RAWP, full validation was performed on 10 percent of the samples collected and submitted for validation. This consisted of a review of data summary forms and raw analytical data provided in the data packages. Partial validation was performed for the remaining data. Partial data quality review consists of a review of only analytical QC summary forms that are included in the data package. The forms and the information contained on the forms are not evaluated for accuracy or completeness during partial data validation.

The analytical data generated for this investigation were evaluated by O'Brien & Gere using the quality assurance/quality control (QA/QC) criteria established in the methods utilized by the laboratories and the following document:

November 10, 2014

Page 2

- O'Brien & Gere. 2014. *Uniform Federal Policy Quality Assurance Project Plan, Operable Unit 3 (OU3)- Site Groundwater Evor Phillips Leasing Company (EPLC) Superfund Site, Old Bridge Township, New Jersey*. Edison, New Jersey. (QAPP)

Data affected by excursions from these criteria were qualified using professional judgment and the general validation approach provided in the following validation guideline documents, modified to reflect the requirements of the methods utilized by the laboratories:

- New Jersey Department of Environmental Protection (NJDEP). 2001a. *Standard Operating Procedure (SOP) for Analytical Data Validation of Target Analyte List (TAL) – Inorganics*, SOP No. 5.A.2. Trenton, New Jersey
- NJDEP. 2001b. *Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables – TCL- Organics (based on the USEPA SOW OLM04.2 with Revisions)*, SOP No. 5.A.13. Trenton, New Jersey

The application of these validation guidelines has been modified to reflect the requirements of the methods utilized by the laboratory.

In accordance with the NJDEP guidance, and utilizing professional judgment, the following qualifiers are used in this type of data review:

- "U" Indicates that the analyte was analyzed for, but was not detected.
- "J" Indicates that the result should be considered to be an estimated value. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- "UJ" Indicates that the sample-specific reporting limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- "R" Indicates that the reporting limit or sample result has been determined to be unusable due to a major deficiency in the data generation process. The data should not be used for any qualitative or quantitative purposes.

In addition, in accordance with the NJDEP guidance, the following single word descriptors were added to analyte results if the reported analyte required a quality assurance action.

- Qualify (Q) - used when the results of a given analyte in a sample do not meet all QA/QC criteria but the deficiencies are not severe enough to warrant data rejection.
- Negate (N) - used when the presence of a given analyte in a sample can be attributed to the laboratory/field introduced contamination.
- Reject (R) - used when the results of a given analyte in a sample do not meet all QA/QC criteria so that the qualitative presence and/or quantitation of that analyte in the sample cannot be determined with any degree of confidence.

Footnotes, based on the NJDEP validation guidance, were applied to each qualifier to define the type of excursion that affected the sample result, resulting in the qualification of the data. Footnotes used in this validation are presented in Table 5 below.

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Table 5. Validation Footnote Definitions	
Footnote	Type of Excursion
3	The value reported is less than or equal to three (3) times the value in the trip/field blank. It is the policy of NJDEP-DPFSR to negate the reported value as due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reportable quantity of the analyte/compound was detected.
35A	Result was qualified due to a holding time excursion.
39	The reported concentration is quantitative qualified because the concentration is below the RL.
89A	Organic results are qualified due to matrix spike/matrix spike duplicate precision excursions.
90	Results are qualified due to field duplicate excursions. (UJ, J)
91	Results are qualified due to calibration excursions.

The following parameters were evaluated, where applicable:

- QAPP compliance
- Documentation completeness
- Chain-of-custody record
- Sample collection
- Sample preservation
- Holding times
- Calibrations (Full validation only)
- Blank analysis
- Matrix spike/ matrix spike duplicate (MS/MSD) analysis
- Laboratory Control Sample (LCS) analysis
- Field duplicate analysis
- Surrogate recovery
- Internal standards performance
- Gas chromatography/mass spectrometry (GC/MS) instrument performance check (Full validation only)
- Inductively coupled plasma (ICP) interference check analysis (Full validation only)
- ICP serial dilution analysis
- Laboratory duplicate analysis
- Target analyte quantitation, identification, and quantitation limits (QLs) (Full validation only)

The following sections of this memorandum present the results of the comparison of the analytical data to the QA/QC criteria specified above.

CHAIN OF CUSTODY RECORDS AND SAMPLE PRESERVATION

For samples collected 5/12/14 to 5/14/14, the year the samples were relinquished from the courier to Accutest was not listed on the records. In addition, the pH for samples 1RND1_ISCOMW-8_051214 and 1RND1_ISCOMW-3_051214, submitted for metal analysis, was adjusted in the laboratory to a pH of less than 2.

For samples collected 6/30/14 to 7/1/14, sample 1RND2-ISCO-MW2-0712014 was not listed on the chain-of-custody. Upon the request of O'Brien & Gere, the laboratory added this sample to the chain-of-custody record and performed the proper analysis for this sample.

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Samples 1RND3_ISCO-MW9_080814 ASC, 1RND3_ISCO-MW1_080814 ASC, 1RND3_ISCO-MW5_080814 ASC and 1RND3_ISCO-MW2_080814 ASC were preserved with ascorbic acid for VOC analysis were added to the chain-of-custody record on 8/14/14 by Accutest at the request of O'Brien & Gere.

Samples 1RND4_ISCO-MW9_09102014 ASC, 1RND4_ISCO-MW5_09112014 ASC, 1RND4_ISCO-MW1_09112014 ASC, 1RND4_ISCO-MW2_09112014 ASC and 1RND4_ISCO-MW3_09112014 ASC were preserved with ascorbic acid for VOC analysis were added to the chain-of-custody record on 9/25/14 by Accutest at the request of O'Brien & Gere.

A time gap was identified for samples collected 9/10/14 to 9/11/14. The samples were relinquished by the field representative on 9/11/14 at 14:15 and the courier received the samples at 9/11/14 at 16:13.

VOC DATA EVALUATION SUMMARY

The following QA/QC parameters were found to meet method and validation criteria or did not result in additional qualification of sample results:

- QAPP compliance
- Documentation completeness
- Sample collection
- Sample preservation
- LCS analysis
- Field duplicate analysis
- Surrogate recovery
- Internal standards performance
- GC/MS instrument performance check
- Target analyte identification

Excursions from method or validation criteria and additional observations are described below.

I. Holding times

The results for the following samples were qualified as approximate (UJ, J, 35A) due to minor holding time representativeness excursions:

- VOC target analytes in samples 1RND1_ISCOMW-8_051214, 1RND1_ISCOMW3_051214 and 1RND4_ISCO-MW9_09102014 ASC.

II. Calibration

The results for the following samples were qualified as approximate (UJ, 91) due to minor calibration accuracy excursions:

- Trichlorofluoromethane and Freon 113 in sample 1RND2_ISCO-MW2_07012014.
- Acetone and methyl acetate in samples 1RND4_MW11I_09102014, 1RND4_MW-14SS_09102014, 1RND4_MW-14SD_09102014, 1RND4_MW-5I_09102014, 1RND4_ISCO-MW5_09112014, 1RND4_ISCO-MW1_09112014, 1RND4_ISCO-MW6_09112014 and 1RND4_FB_09112014.

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III. Blank analysis

The results for the following samples were negated (3) due to minor field blank representativeness excursions:

- Chloroform in samples 1RND4_MW11I_09102014, 1RND4_MW-14SS_09102014, 1RND4_MW-14SD_09102014, 1RND4_ISCO-MW4_09102014, 1RND4_ISCO-MW7_09112014, 1RND4_ISCO-MW2_09112014, 1RND4_ISCO-MW8_09112014 and 1RND4_ISCO-MW2_09112014 ASC.

IV. MS/MSD analysis

The results for the following samples were qualified as approximate (J, 89A) due to a minor MS/MSD precision excursion:

- Tetrachloroethene in sample 1RND2_ISCO-MW3_07012014.

V. Target analyte quantitation and detection limits

Sample results with concentrations greater than the method detection limits (MDL) but less than the QL were flagged as approximate (J) by the laboratory. This flag was retained during the validation process to indicate the data is approximate (J, 39).

Dilutions were performed for VOC sample analyses due to high concentrations of target analytes and matrix interference.

METALS, SULFATE and TDS DATA EVALUATION SUMMARY

The following QA/QC parameters were found to meet method and validation criteria or did not result in additional qualification of sample results (where applicable):

- QAPP compliance
- Documentation completeness
- Sample collection
- Sample preservation
- Holding times
- Calibrations
- Blank analysis
- MS/MSD analysis
- LCS analysis
- ICP interference check analysis
- ICP serial dilution analysis
- Laboratory duplicate analysis

Excursions from method or validation criteria were not identified during the validation process. Additional observations are described below.

I. Field duplicate analysis

The results for the following samples were qualified as approximate (UJ, J, 90) due to minor field duplicate precision excursions:

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- TDS in samples 1RND2-MW-10S-06302014, 1RND2-ISCO-MW4_06302014, 1RND2-ISCO-MW1_06302014, 1RND2-ISCO-MW7_06302014, 1RND2-ISCO-MW5_06302014, 1RND2-ISCO-MW9-07012014, 1RND2-PZ-1S_07012014, 1RND2-ISCO-MW6_07012014, 1RND2-ISCO-MW3_07012014, 1RND2-ISCO-MW8_07012014, 1RND2-MW-14S-D_0702014, 1RND2-MW-14S-S_07012014, 1RND2-IW2-BT2_07012014, 1RND2_07012014_DUP[1RND2-ISCO-MW6_07012014 and 1RND2-ISCO-MW2_07012014.
- TDS in samples 1RND3-ISCO-MW6_080714, 1RND3-ISCO-MW8-080714, 1RND3-IW1-BT2_080714, 1RND3-ISCO-MW7_080714, 1RND3-ISCO-MW4_080714, 1RND3-ISCO-MW3_080714, 1RND3-PZ-1S_080714, 1RND3-MW-10S_080714, 1RND3-DUP_080714[1RND3-ISO-MW7-080714], 1RND3-ISCO-MW9_080814, 1RND3-ISCO-MW1_080814, 1RND3-ISCO-MW5_080814, 1RND3-ISCO-MW2_080814, 1RND3-MW-14SS_080814 and 1RND3-MW-14SD_080814.
- Iron in samples 1RND3-ISCO-MW6_080714-FILTERED, 1RND3-ISCO-MW8-080714-FILTERED, 1RND3-IW1-BT2_080714-FILTERED, 1RND3-ISCO-MW7_080714-FILTERED, 1RND3-ISCO-MW4_080714-FILTERED, 1RND3-ISCO-MW3_080714-FILTERED, 1RND3-PZ-1S_080714-FILTERED, 1RND3-MW-10S_080714-FILTERED, 1RND3-DUP_080714-FILTERED[1RND3-ISO-MW7-080714-FILTERED], 1RND3-ISCO-MW9_080814-FILTERED, 1RND3-ISCO-MW1_080814-FILTERED, 1RND3-ISCO-MW5_080814-FILTERED, 1RND3-ISCO-MW2_080814-FILTERED, 1RND3-MW-14SS_080814-FILTERED and 1RND3-MW-14SD_080814-FILTERED.

II. Target analyte quantitation and QLs

Results for metals and inorganics were reported to the QL concentration.

DATA USABILITY

The data from the samples on Table 2 were evaluated based on QA/QC criteria established by the methods listed in Table 1 and the data validation approach as described in Table 3.

Major deficiencies in the data generation process would have resulted in data points being rejected, indicating that the data are considered unusable for either quantitative or qualitative purposes. Major deficiencies were not identified during the validation process. Minor deficiencies in the data generation process resulted in sample data being characterized as approximate.

A discussion of the data quality with regard to the data usability parameters follows:

Precision: Data were not rejected for precision excursions.

Sensitivity: Sensitivity is established by QLs, which represent measurable concentrations of analytes which can be determined with a designated level of confidence, that meet project requirements. Dilutions were performed for analyses due to elevated concentrations of target analytes in the samples.

Accuracy: Data were not rejected for accuracy excursions.

Representativeness: Data were not rejected for representativeness excursions.

Comparability: Data usability with respect to comparability is 100 percent, as standardized analytical methods, QLs, reference materials, and data deliverables were used throughout the data generation process for this project.

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Completeness: For the samples submitted for data validation, overall data usability with respect to completeness 100 percent for the data, considering the complete data set; therefore, the usability met the QAPP requirement of usable for qualitative and quantitative purposes.

Table 2. Sample Cross Reference Table

Samples collected and submitted for data validation

Laboratory Name	Date Collected	Client Identification	Laboratory Identification	Matrix	Analysis Requested
Accutest	5/12/2014	1RND1_ISCOMW-8_05122014	JB66824-1	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/12/2014	1RND1_ISCOMW-8_05122014-FILTERED	JB66824-1F	Groundwater	Dissolved Metals
Accutest	5/12/2014	1RND1_ISCOMW-4_05122014, MS/MSD	JB66824-2	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/12/2014	1RND1_ISCOMW-4_05122014-FILTERED, MS/MSD	JB66824-2F	Groundwater	Dissolved Metals
Accutest	5/12/2014	1RND1_ISCOMW-7_05122014	JB66824-3	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/12/2014	1RND1_ISCOMW-7_05122014-FILTERED	JB66824-3F	Groundwater	Dissolved Metals
Accutest	5/12/2014	1RND1_ISCOMW-3_05122014	JB66824-4	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/12/2014	1RND1_ISCOMW-3_05122014-FILTERED	JB66824-4F	Groundwater	Dissolved Metals
Accutest	5/12/2014	EB-01_05122014	JB66824-5	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	5/12/2014	EB-01_05122014-FILTERED	JB66824-5F	Aqueous	Dissolved Metals
Accutest	5/13/2014	1RND1_MW-14SA_05132014	JB66824-6	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	1RND1_MW-14SA_05132014-FILTERED	JB66824-6F	Groundwater	Dissolved Metals
Accutest	5/13/2014	1RND1_MW-14SB_05132014	JB66824-7	Groundwater	Dissolved Metals
Accutest	5/13/2014	1RND1_MW-14SB_05132014-FILTERED	JB66824-7F	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	1RND1_MW-10S_05132014	JB66824-8	Groundwater	Dissolved Metals
Accutest	5/13/2014	1RND1_MW-10S_05132014-FILTERED	JB66824-8F	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	EB-02_05132014	JB66824-9	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	EB-02_05132014-FILTERED	JB66824-9F	Aqueous	Dissolved Metals
Accutest	5/13/2014	TB-01_05132014	JB66824-10	Aqueous	VOCs
Accutest	5/13/2014	1RND1_PZ-1S_05132014	JB66824-11	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	1RND1_PZ-1S_05132014-FILTERED	JB66824-11F	Groundwater	Dissolved Metals
Accutest	5/13/2014	1RND1_IW1-BT-2_05132014	JB66824-12	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	1RND1_IW1-BT-2_05132014-FILTERED	JB66824-12F	Groundwater	Dissolved Metals
Accutest	5/13/2014	1RND1_ISCOMW-9_05132014	JB66824-13	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/13/2014	1RND1_ISCOMW-9_05132014-FILTERED	JB66824-13F	Groundwater	Dissolved Metals
Accutest	5/14/2014	1RND1_ISCOMW-1_05142014	JB66824-14	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/14/2014	1RND1_ISCOMW-1_05142014-FILTERED	JB66824-14F	Groundwater	Dissolved Metals
Accutest	5/14/2014	1RND1_ISCOMW-2_05142014	JB66824-15	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/14/2014	1RND1_ISCOMW-2_05142014-FILTERED	JB66824-15F	Groundwater	Dissolved Metals
Accutest	5/14/2014	1RND1_ISCOMW-5_05142014	JB66824-16	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/14/2014	1RND1_ISCOMW-5_05142014-FILTERED	JB66824-16F	Groundwater	Dissolved Metals
Accutest	5/14/2014	1RND1_ISCOMW-6_05142014	JB66824-17	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/14/2014	1RND1_ISCOMW-6_05142014-FILTERED	JB66824-17F	Groundwater	Dissolved Metals
Accutest	5/14/2014	1RND1_DUP01_05142014[1RND_ISCOMW-5_05142014]	JB66824-18	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	5/14/2014	1RND1_DUP01_05142014-FILTERED[1RND_ISCOMW-5_05142014-FILTERED]	JB66824-18F	Groundwater	Dissolved Metals
Accutest	5/14/2014	EB-03_05142014	JB66824-19	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	5/14/2014	EB-03_05142014-FILTERED	JB66824-19F	Aqueous	Dissolved Metals
Accutest	5/14/2014	TB-02_05142014	JB66824-20	Aqueous	VOCs
Accutest	6/30/2014	1RND2_MW-10S_06302014	JB70619-1	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	6/30/2014	1RND2_MW-10S_06302014-FILTERED	JB70619-1F	Groundwater	Dissolved Metals
Accutest	6/30/2014	1RND2_ISCO-MW4_06302014	JB70619-2	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	6/30/2014	1RND2_ISCO-MW4_06302014-FILTERED	JB70619-2F	Groundwater	Dissolved Metals
Accutest	6/30/2014	1RND2_ISCO-MW1_06302014	JB70619-3	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	6/30/2014	1RND2_ISCO-MW1_06302014-FILTERED	JB70619-3F	Groundwater	Dissolved Metals
Accutest	6/30/2014	1RND2_ISCO-MW7_06302014	JB70619-4	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	6/30/2014	1RND2_ISCO-MW7_06302014-FILTERED	JB70619-4F	Groundwater	Dissolved Metals
Accutest	6/30/2014	1RND2_ISCO-MW5_06302014	JB70619-5	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	6/30/2014	1RND2_ISCO-MW5_06302014-FILTERED	JB70619-5F	Groundwater	Dissolved Metals
Accutest	6/30/2014	1RND2_06302014_FB	JB70619-6	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	6/30/2014	1RND2_06302014_FB-FILTERED	JB70619-6F	Aqueous	Dissolved Metals
Accutest	7/1/2014	1RND2_ISCO-MW9_07012014	JB70619-7	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_ISCO-MW9_07012014-FILTERED	JB70619-7F	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_PZ-1S_07012014	JB70619-8	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_PZ-1S_07012014-FILTERED	JB70619-8F	Groundwater	Dissolved Metals
Accutest	7/1/2014	TB	JB70619-9	Aqueous	VOCs
Accutest	7/1/2014	1RND2_ISCO-MW6_07012014	JB70619-10	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_ISCO-MW6_07012014-FILTERED	JB70619-10F	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_ISCO-MW3_07012014, MS/MSD	JB70619-11	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_ISCO-MW3_07012014-FILTERED, MS/MSD	JB70619-11F	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_ISCO-MW8_07012014	JB70619-12	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_ISCO-MW8_07012014-FILTERED	FJB70619-12	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_MW-14S-D_07012014	JB70619-13	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_MW-14S-D_07012014-FILTERED	FJB70619-13	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_MW-14S-S_07012014	JB70619-14	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_MW-14S-S_07012014-FILTERED	JB70619-14F	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_IW2-BT2_07012014	JB70619-15	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_IW2-BT2_07012014-FILTERED	JB70619-15F	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_07012014_FB	JB70619-16	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_07012014_FB-FILTERED	JB70619-16F	Aqueous	Dissolved Metals

Table 2. Sample Cross Reference Table

Samples collected and submitted for data validation

Laboratory Name	Date Collected	Client Identification	Laboratory Identification	Matrix	Analysis Requested
Accutest	7/1/2014	TB	JB70619-17	Aqueous	VOCs
Accutest	7/1/2014	1RND2_07012014_DUP[1RND2_ISCO-MW6_07012014]	JB70619-18	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_07012014_DUP-FILTERED[1RND2_ISCO-MW6_07012014-FILTERED]	JB70619-18F	Groundwater	Dissolved Metals
Accutest	7/1/2014	1RND2_ISCO-MW2_07012014	JB70619-19	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	7/1/2014	1RND2_ISCO-MW2_07012014-FILTERED	JB70619-19F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_ISCO-MW6_080714	JB73631-1	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_ISCO-MW6_080714-FILTERED	JB73631-1F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_ISCO-MW8_080714, MS/MSD	JB73631-2	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_ISCO-MW8_080714-FILTERED, MS/MSD	JB73631-2F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_IW1-BT2_080714	JB73631-3	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_IW1-BT2_080714-FILTERED	JB73631-3F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_ISCO-MW7_080714	JB73631-4	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_ISCO-MW7_080714-FILTERED	JB73631-4F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_ISCO-MW4_080714	JB73631-5	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_ISCO-MW4_080714-FILTERED	JB73631-5F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_ISCO-MW3_080714	JB73631-6	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_ISCO-MW3_080714-FILTERED	JB73631-6F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_PZ-1S_080714	JB73631-7	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_PZ-1S_080714-FILTERED	JB73631-7F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_MW-10S_080714	JB73631-8	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_MW-10S_080714-FILTERED	JB73631-8F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3-DUP_080714[1RND3-ISCO-MW7_080714]	JB73631-9	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3-DUP_080714-FILTERED[1RND3-ISCO-MW7_080714-FILTERED]	JB73631-9F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_ISCO-MW9_080814	JB73631-10	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_ISCO-MW9_080814-FILTERED	JB73631-10F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_ISCO-MW1_080814	JB73631-11	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_ISCO-MW1_080814-FILTERED	JB73631-11F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_ISCO-MW5_080814	JB73631-12	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_ISCO-MW5_080814-FILTERED	JB73631-12F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_ISCO-MW2_080814	JB73631-13	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_ISCO-MW2_080814-FILTERED	JB73631-13F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_MW-14SS_080814	JB73631-14	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_MW-14SS_080814-FILTERED	JB73631-14F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_MW-14SD_080814	JB73631-15	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_MW-14SD_080814-FILTERED	JB73631-15F	Groundwater	Dissolved Metals
Accutest	8/8/2014	1RND3_FB_080814	JB73631-16	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/8/2014	1RND3_FB_080814-FILTERED	JB73631-16F	Groundwater	Dissolved Metals
Accutest	8/7/2014	1RND3_FB_080714	JB73631-17	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	8/7/2014	1RND3_FB_080714-FILTERED	JB73631-17F	Groundwater	Dissolved Metals
Accutest	8/8/2014	TB	JB73631-18	Aqueous	VOCs
Accutest	8/8/2014	1RND3_ISCO-MW9_080814 ASC	JB73631-19	Groundwater	VOCs
Accutest	8/8/2014	1RND3_ISCO-MW1_080814 ASC	JB73631-20	Groundwater	VOCs
Accutest	8/8/2014	1RND3_ISCO-MW5_080814 ASC	JB73631-21	Groundwater	VOCs
Accutest	8/8/2014	1RND3_ISCO-MW2_080814 ASC	JB73631-22	Groundwater	VOCs
Accutest	9/10/2014	IRND4_MW11I_09102014	JB76271-1	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_MW11I_09102014-FILTERED	JB76271-1F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_MW-14SS_09102014	JB76271-2	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_MW-14SS_09102014-FILTERED	JB76271-2F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_MW-14SD_09102014	JB76271-3	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_MW-14SD_09102014-FILTERED	JB76271-3F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_MW-5I_09102014	JB76271-4	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_MW-5I_09102014-FILTERED	JB76271-4F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_MW-10S_09102014	JB76271-5	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_MW-10S_09102014-FILTERED	JB76271-5F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_DUP_09102014[IRND4-MW-10S_09102014]	JB76271-6	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_DUP_09102014-FILTERED[IRND4-MW-10S_09102014-FILTERED]	JB76271-6F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_IW1-DR1_09102014	JB76271-7	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_IW1-DR1_09102014-FILTERED	JB76271-7F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_ISCO-MW4_09102014	JB76271-8	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_ISCO-MW4_09102014-FILTERED	JB76271-8F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_PZ-1S_09102014, MS/MSD	JB76271-9	Groundwater	VOCs, Metals, Sulfate, TDS

Table 2. Sample Cross Reference Table

Samples collected and submitted for data validation

Laboratory Name	Date Collected	Client Identification	Laboratory Identification	Matrix	Analysis Requested
Accutest	9/10/2014	IRND4_PZ-1S_09102014-FILTERED, MS/MSD	JB76271-9F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_ISCO-MW9_09102014	JB76271-10	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_ISCO-MW9_09102014-FILTERED	JB76271-10F	Groundwater	Dissolved Metals
Accutest	9/10/2014	IRND4_FB_09102014	JB76271-11	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	9/10/2014	IRND4_FB_09102014-FILTERED	JB76271-11F	Aqueous	Dissolved Metals
Accutest	9/11/2014	IRND4_TB	JB76271-12	Aqueous	VOCs
Accutest	9/11/2014	IRND4_ISCO-MW7_09112014	JB76271-13	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW7_09112014-FILTERED	JB76271-13F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_ISCO-MW5_09112014	JB76271-14	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW5_09112014-FILTERED	JB76271-14F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_ISCO-MW1-_09112014	JB76271-15	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW1-_09112014-FILTERED	JB76271-15F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_ISCO-MW2_09112014	JB76271-16	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW2_09112014-FILTERED	JB76271-16F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_ISCO-MW3_09112014	JB76271-17	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW3_09112014-FILTERED	JB76271-17F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_IWI-BT2_09112014	JB76271-18	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_IWI-BT2_09112014-FILTERED	JB76271-18F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_ISCO-MW6_09112014	JB76271-19	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW6_09112014-FILTERED	JB76271-19F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_ISCO-MW8_09112014	JB76271-20	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_ISCO-MW8_09112014-FILTERED	JB76271-20F	Groundwater	Dissolved Metals
Accutest	9/11/2014	IRND4_FB_09112014	JB76271-21	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	9/11/2014	IRND4_FB_09112014-FILTERED	JB76271-21F	Aqueous	Dissolved Metals
Accutest	9/10/2014	IRND4_ISCO-MW9_09102014 ASC	JB76271-22	Groundwater	VOCs
Accutest	9/11/2014	IRND4_ISCO-MW5_09112014 ASC	JB76271-23	Groundwater	VOCs
Accutest	9/11/2014	IRND4_ISCO-MW1-_09112014 ASC	JB76271-24	Groundwater	VOCs
Accutest	9/11/2014	IRND4_ISCO-MW2_09112014 ASC	JB76271-25	Groundwater	VOCs
Accutest	9/11/2014	IRND4_ISCO-MW3_09112014 ASC	JB76271-26	Groundwater	VOCs

Note:

Accutest indicates Accutest Laboratories of Dayton, New Jersey.

VOCs indicates volatile organic compounds.

TDS indicates total dissolved solids.

MS/MSD indicates matrix spike/matrix spike duplicate.

DUP indicates field duplicate.

The sample identification utilized for field duplicate is shown in brackets.

TB indicates trip blank.

FB and EB indicates field equipment blank.

ASC indicates VOC samples preserved with ascorbic acid.

Table 3 - O'Brien & Gere data validation approach using NJDEP data validation guidelines

General Validation Approach	<p>Data evaluation is based on QA/QC criteria established the methods utilized by the laboratory and quality plans developed for the project.</p> <p>The NJDEP data validation guidance applies to data generated using USEPA CLP methods. This project was not analyzed using CLP methods. Therefore, data affected by excursions from criteria presented in the methods and quality plan are qualified using professional judgment with some consideration of the general guidance provided in the following documents:</p> <ul style="list-style-type: none"> • New Jersey Department of Environmental Protection (NJDEP). 2001a. Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables – TCL- Organics (based on the USEPA SOW OLM04.2 with Revisions), SOP No. 5.A.13. Trenton, New Jersey; and • NJDEP. 2001b. Standard Operating Procedure (SOP) for Analytical Data Validation of Target Analyte List (TAL) – Inorganics, SOP No. 5.A.2. Trenton, New Jersey. <p>The following qualifiers are applied to data:</p> <p>"U" Indicates that the analyte was analyzed for, but was not detected.</p> <p>"J" Indicates that the result should be considered to be an estimated value. This qualifier is used when the data validation process identifies a deficiency in the data generation process.</p> <p>"UJ" Indicates that the sample-specific reporting limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.</p> <p>"R" Indicates that the reporting limit or sample result has been determined to be unusable due to a major deficiency in the data generation process. The data should not be used for any qualitative or quantitative purposes.</p> <p>In addition, in accordance with the NJDEP guidance, the following single word descriptors were added to analyte results if the reported analyte required a quality assurance action.</p> <ul style="list-style-type: none"> • Qualify (Q) - used when the results of a given analyte in a sample do not meet all QA/QC criteria but the deficiencies are not severe enough to warrant data rejection. • Negate (N) - used when the presence of a given analyte in a sample can be attributed to the laboratory/field introduced contamination. • Reject (R) - used when the results of a given analyte in a sample do not meet all QA/QC criteria so that the qualitative presence and/or quantitation of that analyte in the sample cannot be determined with any degree of confidence. <p>Footnotes are applied to each qualifier to define the type of excursion that affected the sample result, resulting in the qualification of the data, as listed on this table.</p> <p>Data are evaluated using the QA/QC criteria (including holding times and calibration) established in the applicable Quality Assurance Project Plan (QAPP), analytical methods and laboratory established control limits. Since the NJDEP validation guidelines apply to data generated using CLP methods, the application of these validation guidelines is modified to reflect method requirements, where applicable, since non-CLP methods are used in the analysis of samples.</p> <p>A full QA/QC review is performed for 10 percent of the aqueous and solid samples, including a review of data summary forms and raw analytical data that were provided by the laboratory in the data package documentation. Partial review is performed for the remaining environmental samples submitted for data validation for this sampling event. Partial review consists of a review of the data summary forms. During the partial validation, only summary QA/QC forms are evaluated. The forms and the information contained on the forms are not evaluated for accuracy or completeness during the partial validation process.</p> <p>The validation approach taken by O'Brien & Gere is a conservative one; qualifiers are applied to sample data to indicate both major and minor excursions. In this way, data associated with any type of excursion are identified to the data user. Major excursions will result in data being rejected, indicating that the data are considered unusable for either quantitative or qualitative purposes. Minor excursions will result in sample data being qualified as approximate that are otherwise usable for quantitative or qualitative purposes.</p> <p>Excursions are subdivided into excursions that are within the laboratory's control and those that are out of the laboratory's control. Excursions involving laboratory control sample recovery, calibration response, method blank excursions, low or high spike recovery due to inaccurate spiking solutions or poor instrument response, holding times, interpretation errors, and quantitation errors are within the control of the laboratory. Excursions resulting from matrix spike recovery, serial dilution recovery, surrogate, and internal standard performance due to matrix interference from the matrix of the samples are examples of those excursions that are not within the laboratory's control if the laboratory has followed proper method control procedures, including performing appropriate cleanup techniques.</p>
Parameter Type	Approach in Applying Data Validation Qualifiers
Sample collection information- Cooler Temperature	Results for samples submitted for organic and inorganic analyses impacted by cooler temperatures of greater than 10°C are noted in the report.* Qualifiers are not applied to data.
Sample collection information- Percent Solids	Results for samples submitted for organic and inorganic analyses that are impacted by percent solids of 50 percent are noted in the report.* Qualifiers are not applied to data.
VOCs by USEPA Method 8260B Calibration Evaluation	VOC target analytes are evaluated using the criteria of 15%RSD or correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 20%D for all target compounds. Initial calibrations and calibration verifications were also evaluated using the criterion of a RF value of greater than or equal to a value of 0.01 for ketones and 0.05 for the remaining target analytes. If analyzed, the second-source standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.

Table 3 - O'Brien & Gere data validation approach using NJDEP data validation guidelines

VOCs by USEPA Method 524.2 Calibration Evaluation	VOC target analytes are evaluated using the criteria of 20%RSD or correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 30%D for all target compounds. Initial calibrations and calibration verifications were also evaluated using the criterion of a RF value of greater than or equal to a value of 0.05. If analyzed, the second-source standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.
VOCs by USEPA Method 624 Calibration Evaluation	VOC target analytes are evaluated using the criteria of 35 percent relative standard deviation (%RSD) or correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using criteria presented in Table 5 of USEPA Method 624 and 50 percent difference (%D) for the remaining target analytes not listed in the method. Initial calibrations and calibration verifications are also evaluated using a response factor (RF) criteria of greater than or equal to 0.05 for target analytes. A minimum of a RF pf 0.01 is required for ketones and poor-purging analytes. If analyzed, the second-source standard or low standard is evaluated using a 30% recovery or the laboratory control limits.
SVOCs by USEPA Method 8270C Calibration Evaluation	SVOC target analytes are evaluated using the criteria of 15 %RSD or correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 20%D for all target compounds. Initial calibrations and calibration verifications were also evaluated using the criterion of a RF value of greater than or equal to a value of 0.05 for the target analytes. If analyzed, the second-source standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.
Calibration Actions for VOCs (8260B) and SVOCs (8270C)	<p>Due to any relative standard deviation (RSD) calibration excursions, detected results for analytes in samples associated with the calibration are qualified as approximate (J). Non-detected results associated with RSD excursions may be qualified as approximate (UJ) based on professional judgment.</p> <p>If the RSD calibration excursion is greater than 90, detected results for analytes in samples associated with the calibration are qualified as approximate (J) and non-detected results may be <u>rejected</u> (R), applying professional judgment.</p> <p>Due to any %D calibration verification excursions, detected and non-detected results for analytes in samples associated with the calibration are qualified as approximate (J, UJ).</p> <p>If the %D calibration excursion is greater than 90, detected results for analytes in samples associated with the calibration are qualified as approximate (J) and non-detected results may be <u>rejected</u> (R), applying professional judgment.</p> <p>For response factor excursions, detected results are qualified as approximate (J) and non-detected results are <u>rejected</u> (R).</p> <p>For initial calibration verifications (ICV) excursions, detected and non-detected results for analytes in samples associated with the calibration are qualified as approximate (J, UJ). The response direction and detection of target analytes in associated sample may be considered in applying qualifiers.</p>
PCBs by USEPA Method 8082 Calibration Evaluation	PCB target analytes are evaluated using the criteria of 20 %RSD or correlation coefficient of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 15 %D for target analytes. ICV recoveries are evaluated using laboratory control limits if available or 70 to 130%.
Pesticides by USEPA Method 8081A Calibration Evaluation	Pesticide target analytes are evaluated using the criteria of 20 %RSD or correlation coefficient of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 20 %D for the target analytes. ICV recoveries are evaluated using laboratory control limits if available or 70 to 130%.
Herbicides by USEPA Method 8151A Calibration Evaluation	Herbicide target analytes are evaluated using the criteria of 20 %RSD or correlation coefficient of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 20 %D for the target analytes. ICV recoveries are evaluated using laboratory control limits if available or 70 to 130%.
Calibration Actions for PCB, Pesticides and Herbicides GC analyses	<p>Due to any relative standard deviation (RSD) calibration excursions, detected results for analytes in samples associated with the calibration are qualified as approximate (J). Non-detected results associated with RSD excursions may be qualified as approximate (UJ) based on professional judgment.</p> <p>Due to any %D calibration verification excursions, detected and non-detected results for analytes in samples associated with the calibration are qualified as approximate (J, UJ).</p> <p>For initial calibration verifications (ICV) excursions, detected and non-detected results for analytes in samples associated with the calibration are qualified as approximate (J, UJ). The response direction and detection of target analytes in associated sample may be considered in applying qualifiers.</p>
Calibration Data- GC by USEPA Method 8011	Data are evaluated using the criteria of 20%RSD for initial calibrations, or correlation coefficient of 0.990 for calibration curves, and 20%D for the calibration verifications. Results are qualified for primary column calibration excursions. The second-source standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.
Organic Multi-results	When two results are reported, due to re-preparation or for dilution analyses, both sets of results are evaluated during the validation process. Based on the evaluation of the associated quality control data, the results reflecting the higher quality data are reported.

Table 3 - O'Brien & Gere data validation approach using NJDEP data validation guidelines

General Organic Surrogate, MS/MSD, LCS, Duplicate Data	Laboratory established control limits are used to assess duplicate, surrogate, MS/MSD, and LCS data.
	In the case that excursions are identified in more than one quality control sample of the same matrix within one sample delivery group, samples are batched according to sample preparation or analysis date and qualified accordingly.
	For surrogate recoveries are not within laboratory control limits: If two or more surrogate recoveries are outside of laboratory control limits for SVOC analysis, results are rejected (R, 81) unless matrix interferences are confirmed by re-extraction and reanalysis. If one or more surrogate recoveries are not within laboratory control limits for PCB, results are qualified as UJ, J, 81B.
	If LCS percent recoveries are less than laboratory control limits but greater than ten percent, non-detected and detected results are qualified as approximate (UJ, J, 88) to indicate minor excursions.
	If LCS percent recoveries are greater than laboratory control limits, detected results are qualified as approximate (J, 88) to indicate minor excursions.
	If LCS percent recoveries are outside of laboratory control limits and less than ten percent, detected results are qualified as approximate (J, 88) and non-detected results are qualified as rejected (R, 88A) to indicate major excursions.
	If RPDs for MSDs or duplicates are outside of laboratory control limits, detected results are qualified as approximate (J, 89A) to indicate minor excursions.
Organic MS/MSD Data	Qualification of organic data for MS/MSD analyses is performed only when both MS and MSD percent recoveries are outside of laboratory control limits with zero percent recovery.
	Organic data are rejected (R, 87) to indicate major excursions in the case that both MS/MSD recoveries are zero.
Sample dilution Data	Qualification of data is not performed if MS/MSD or surrogate recoveries are outside of laboratory control limits due to sample dilution.
MS/MSD and Field Duplicate Data – Organic Data	Qualification of data associated with MS/MSD or field duplicate excursions is limited to the un-spiked sample or the field duplicate pair, respectively.
Field Duplicate Data	Field duplicate data are evaluated against relative percent difference (RPD) criteria of less than 50 percent for aqueous samples and less than 100 percent for soils when results are greater than five times the QL. When sample results for field duplicate pairs are less than five times the QL, the data are evaluated using control limits of plus or minus two times the QL for soils. If RPDs for field duplicates are outside of laboratory control limits, detected and non-detected results are qualified as approximate (UJ, J, 90) to indicate minor excursions.
Internal Standard - Organic Data	Internal standard recoveries are evaluated using control limits of within 50% of the lower standard area and up to 100% of the upper standard area of the associated calibration verification standard. Sample results are qualified as approximate (UJ, J, 50) if one internal standard does not meet criteria. Detected sample results are qualified as approximate (J, 51) if two or more internal standards do not meet criteria. Non-detected sample results are rejected (R, 51) if two or more internal standards do not meet criteria.
Internal Standard/Surrogate - Organic Data- Drinking Water methods	Internal standard recoveries are evaluated using method control limits. Monitor the integrated areas of the quantitation ions of the internal standards and surrogates in all samples, continuing calibration checks, and blanks. These should remain reasonably constant over time. An abrupt change may indicate a matrix effect or an instrument problem. If a cryogenic interface is utilized, it may indicate an inefficient transfer from the trap to the column. These samples must be reanalyzed or a laboratory fortified duplicate sample analyzed to test for matrix effect. A drift of more than 50% in any area is indicative of a loss in sensitivity, and the problem must be found and corrected. CCV- Determine that the absolute areas of the quantitation ions of the internal standard and surrogates have not decreased by more than 30% from the areas measured in the most recent continuing calibration check, or by more than 50% from the areas measured during initial calibration. If these areas have decreased by more than these amounts, adjustments must be made to restore system sensitivity.
Evaluation of Internal Standards for samples (VOCs for USEPA Method 524.2)	Internal standard areas of samples are evaluated using the validation control limit of 70 to 130 percent recovery when compared to the calibration verification associated with the samples. Sample results are qualified as approximate (UJ, J, 50) if one internal standard does not meet criteria. Detected sample results are qualified as approximate (J, 51) if two or more internal standards do not meet criteria. Non-detected sample results are rejected (R, 51) if two or more internal standards do not meet criteria.

Table 3 - O'Brien & Gere data validation approach using NJDEP data validation guidelines

Evaluation of CCVs (VOCs for USEPA Method 524.2)	<p>Internal standard areas of CCVs are evaluated using the validation control limit of 50 to 100 percent recovery when compared to the initial calibration.</p> <p>Sample results are qualified as approximate (UJ, J, 50) if one internal standard does not meet criteria.</p> <p>Detected sample results are qualified as approximate (J, 51) if two or more internal standards do not meet criteria.</p> <p>Non-detected sample results are rejected (R, 51) if two or more internal standards do not meet criteria.</p>
Evaluation of Initial (ICV) and Calibration Verification (CCV) for Metals by 6010B/6020A, Mercury by 7470A/7471B, and Total Cyanide by 9012B	<p>Metals are evaluated using the criteria for ICV and CCV of 90% to 110% of the expected value.</p> <p>Mercury is evaluated using the criteria for ICV of 90% to 110% of the expected value and 80% to 120% of the expected value for the CCV.</p> <p>Total Cyanide is evaluated using the criteria for ICV and CCV of 85% to 115% of the expected value.</p> <p>For analyses utilizing a calibration curve, the correlation coefficient for the first or second order curve must be ≥ 0.995.</p>
Performance Evaluation for ICP-MS by 6020A	<p>ICP-MS data is evaluated using resolution of mass calibration of within 0.1μ and the %RSD of less than 15%.</p> <p>Resolution must be less than 0.9amu of full width at 10% of peak height.</p>
Evaluation of Initial (ICV) and Calibration Verification (CCV) for Metals by EPA method 200.7/200.8 and Anions by Method 300.0	<p>Metals are evaluated using the criteria for ICV and CCV of 95% to 105% for EPA 200.7 and 90% to 110% for EPA 200.8 and 300.0.</p> <p>For analyses utilizing a calibration curve, the correlation coefficient for the first or second order curve must be ≥ 0.995.</p>
Evaluation of Internal Standards for ICP-MS by 200.8	Internal standard recoveries are evaluated using control limits of percent relative intensity (%RI) from 60% to 125% of the response in the calibration blank.
Evaluation of Internal Standards for ICP-MS by 6020A	<p>Internal standard recoveries are evaluated using control limits of percent relative intensity (%RI) from 60% to 125% of the response in the calibration blank.</p> <p>The intensity of any internal standard must be $>30\%$ or $<120\%$ of the intensity of the internal standard in the initial calibration standard.</p> <p>The intensity of the internal standard of the CCB and CCV must agree within $\pm 20\%$ of the intensity of the internal standard in the ICV.</p>
Metal and Inorganic MS/MSD, Laboratory/Field Duplicate, Serial Dilution	Qualification of sample results associated with MS/MSD, laboratory duplicate and field duplicate excursions is performed on samples for the same matrix, within the same preparation batch, within the same SDG group.
Validation Footnotes	
Footnote	Type of Excursion
1	The value reported is less than or equal to three (3) times the value in the method blank/preparation blank. It is the policy of NJDEP-DPFSR to negate the reported value due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reportable quantity of the analyte/compound was detected. The B qualifier must be reported.
2	The value reported is greater than three (3) times but less than or equal to 10 times the value in the method blank/preparation blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to the method blank contamination. The "B" qualifier alerts the end-user to the presence of this analyte/compound in the method blank.
3	The value reported is less than or equal to three (3) times the value in the trip/field blank. It is the policy of NJDEP-DPFSR to negate the reported value as due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reportable quantity of the analyte/compound was detected.
4	The value reported is greater than three (3) times the value in the trip/field blank but less than or equal to 10 times the value in the blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to trip/field blank contamination.
4A	The result was qualified due to negative drift.
4B	The result was qualified as "U" due to blank contamination.
5	The concentration reported by the laboratory is incorrectly calculated.
6	The laboratory failed to report the presence of the analyte in the sample.
7	The reported metal value was qualified because the Initial/Continuing Calibration Standard was not within the recovery range.
8	No CRDL Standard for AA or ICP analysis was performed. Therefore, the analyte affected was rejected.
9	The reported concentration was quantitatively qualified because the concentration was below the CRDL but greater than the MDL. The concentration is considered estimated since the value obtained is at the low end of the instrument performance.
9A	IDLs are greater than the CRDLs.

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10	The reported metal value was qualified because the ICP Interference Check Sample was outside the recovery range (80-120 percent).
11	The non-detect metal value was qualified "UJ" because the ICP Interference Check Sample was within the range of 50 and 79%; hence a possibility of false negatives exists.
12	This non-detected metal analyte had Laboratory Control Sample recovery that fell within the range of 70-79%. The end-user should be aware of the possibility of false negatives; therefore, this analyte is flagged as estimated (UJ).
13	The reported metal value was qualified because the Laboratory Control Sample recovery fell within the range of 70-79 %. The end-user should be aware of results that may be biased low.
14	The reported metal value was qualified because the Laboratory Control Sample recovery was greater than 120% but less than or equal to 130%. The end-user should be aware of results that may be biased high.
15	The metal analyte is rejected because the Laboratory Control Sample recovery was less than 70% or greater than 130%.
16	In the Duplicate Sample Analysis for metals, the analyte fell outside the control limits of +20 percent or + CRDL. Therefore, result for the metal was qualified.
17	This analyte was rejected because the laboratory performed the Duplicate Analysis on a field blank.
18	The reported metal value was qualified because the spike recovery was greater than 125 percent but less than or equal to 200%.
18A	The reported metal was qualified because both the spike recovery and matrix spike duplicate recovery were outside of the validation control limits.
19	The reported metal value was qualified because the spike recovery was between 25 and 74 percent.
20	The reported metal value was qualified because the spike recovery was less than 25 percent. The reported value actually indicated the minimum concentration at which the metal was present.
21	The non-detected metal value was qualified (UJ) because the spike recovery was between 25 and 74 percent. The possibility of a false negative exists.
22	The non-detected metal value was rejected because the spike recovery was less than 25 percent.
23	The reported metal value was rejected because the laboratory used a field blank for the Sample Spike Analysis.
24	There was no Post-Digestion Spike Sample Recovery analysis performed. Therefore, the analyte was rejected.
25	The reported metal value was qualified because the Serial Dilution was not within ten percent of sample concentration.
26	The reported metal value was rejected because the laboratory used a field blank for the Serial Dilution analysis or the post-digestion spike.
27	This metal analyte is rejected because the preparation blank concentration of this analyte is greater than the CRDL and the reported sample concentration is less than ten (10) times the preparation blank concentration.
28	The laboratory incorrectly transcribed the raw data onto the Inorganic Analysis Data Sheet form or there are data package issues.
28A	Verification of instrument parameters was performed outside of the required frequency.
28B	A percent solids issue was detected.
29	The reported metal analyte was rejected because the CRDL standard % Recovery fell less than 30% or was greater than 175% , or another severe CRDL deficiency was detected.
30	The non-detected metal value was rejected because the post-digestion spike recovery was less than 25 percent.
30A	The metal value was qualified since the post-digestion spike recovery was exceeded.
31	The reported metal analyte was rejected because the associated Continuing Calibration Blank result was greater than the CRDL.
32	The reported metal analyte was rejected because this sample is not associated with a Laboratory Control Sample or ICB or CCB.
33	The laboratory made a transcription error.
33A	A methods comparison issue was detected.
34	The laboratory used an incorrectly associated Preparation Blank.
35	This analyte is rejected because the laboratory exceeded the holding time for analysis or extraction.
35A	Result was qualified due to a holding time excursion.
36	This metal value was qualified because the CRDL standard was not within the recovery range.
37	The reported concentration is quantitatively qualified due to calibration deficiencies.
38	The reported concentration is quantitatively qualified due to surrogate recovery outliers.
39	The reported concentration is quantitative qualified because the concentration is below the RL.
40	The sample holding time to re-extraction and/or reanalysis was exceeded. All positive results including the tentatively identified compounds are highly qualified.
41	The mass spectral identification has not been confirmed and the identification of this compound has been rejected. This compound should now be considered an unknown and the reported concentration is considered an estimated value.
42	The percent Difference of the calculated values on both columns is greater than 100% and less than 999.9 %. This value is significantly greater than the 25 % limits established by the USEPA-Contract Laboratory Program. The extreme variation between the values from the two columns is apparently due to instrumentation problems and/or matrix interference. Therefore, the reported concentrations cannot be verified and only a tentative identification of the Aroclor or pesticide can be determined.
42A	The percent difference from both columns was greater than 25%.
42B	The percent difference from both columns was greater than 40%.

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42C	The percent difference from both columns was greater than 70%.
42D	The percent difference from both columns was greater than 100% without evidence of matrix interferences being present. The results are rejected (R).
42E	Results were reported at a concentration that was less than the PQL with a %D greater than 50 percent. The PQL is reported and qualified as non-detected (U).
43	The peak retention times of the Aroclors or pesticides detected in the samples are outside of the retention time window established in the initial calibration. The identification of the Aroclors or pesticides cannot be verified due to the retention time shift outside of the windows. Retention time shifts are evident in all of the continuing calibration standards and the Performance Evaluation Mixtures, therefore the usability of the data is questionable.
44	The laboratory didn't provide the mass spectral proof for the analyte although the quantitation report indicates the presence of the analyte. The presence of this analyte in the sample is considered tentative.
45	The non target compound is qualified "J" and considered an estimated value because relative response factors are not determined for non-target compounds.
46	The laboratory's call on the non target compound did not match the mass spectra of the compound at the approximate scan number in the blank. The laboratory call is incorrect.
47	The laboratory failed to report this analyte on the Organic Analysis Data Sheet (OADS) Form even though the TIC, quantitation report and library search indicates a hit for the analyte.
48	The laboratory reported this analyte in the QADS form. However, this analyte was negated in the quantitation report. QA reviewer agrees the mass spectrum is not a good match and therefore, negates the presence of this analyte in the sample.
49	No library search was submitted for this unknown.
49A	Results were rejected since correct internal standard was not used.
50	One internal standard area in the sample did not meet the QC criteria. Therefore, all compound results using this internal standard for quantitation are quantitatively estimated. (UJ, J)
51 (See 84)	Two or more internal standard areas in the sample did not meet the QC criteria with recoveries of <u>greater than 25%</u> . The detected results for the entire fraction for that sample are qualified as approximate (J). The non-detected results are rejected (R).
52	The RIC in the raw data indicates a non-target(s) is present. The lab failed to report and provide library search(s) for the non-target(s).
53	The laboratory did not quantify the pesticides present in the sample. The pesticide was confirmed on a second column. Quantitation of the peaks revealed that the value is above the CRQL.
54	The lab failed to report this analyte although it was found in both columns and is within the retention times of both columns for the analyte.
55	The retention time window for this analyte overlaps with the retention time window of another analyte. The identity is indistinguishable and therefore tentative.
56	The laboratory reported concentration does not agree with QA reviewer's calculated concentration.
57	The compound exceeded the calibration range of the instrument and is indicated with the "E" qualifier.
58	The compound is a suspected Aldol condensation product and is flagged with the "A" qualifier.
59	The laboratory was required to dilute the samples to bring the peaks onto scale.
60	This sample was diluted prior to analysis. The value reported prior to the dilution correction is less than three (3) times the value in the method blank. It is the policy of NJDEP-DPFSR to negate the reported value due to probable foreign laboratory contamination unrelated to the actual sample. The end-user is alerted that a reportable quantity of the analyte was detected.
61	This non-target compound was detected as a target compound in another analytical fraction. Therefore, the presence of this compound as a non-target analyte is negated.
62	This sample was diluted prior to analysis. The value reported prior to the dilution correction is greater than three (3) times the value in the method blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to method blank contamination. The "B" qualifier alerts the end-user to the presence of this analyte in the method blank.
62A	Results are rejected due to a severe blank analysis excursion.
62B	Results are qualified due to a blank analysis excursion.
63	The results are rejected because the initial calibration, continuing calibration or internal standard was not performed using the proper sequence, concentration, matrix, or internal standards.
63A	Results are rejected due to a severe pesticide/Aroclor analysis issue.
63B	Results are negated due to a blank analysis excursion.
63C	Results are qualified due to a pesticide/Aroclor analysis issue.
64	The results are rejected because the D of the single component pesticide and/or surrogate in the PEM(s) is greater than 25%.
64A	Results are rejected due to a major calibration excursion.
65	The results are rejected because of resolution, scaling, or retention time issues.
65A	Results are qualified due to scaling, or calibration issues.
66	The result is rejected due to retention time deficiencies.
67	The result is qualified because the DDT and/or Endrin breakdown was greater than 20%.

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68	The result is qualified because the combined DDT/Endrin breakdown is greater than 30%.
69	The results are rejected because GPC cleanup was not performed on the sample extract.
70	The results are rejected because florisil cleanup was not performed on the sample extract.
71	The results are rejected due to GPC calibration or analysis deficiencies.
72	The results are rejected because the florisil cartridge check yielded unacceptable percent recoveries or was not performed properly.
73	The sample holding time was exceeded by greater than ten days. The sample results are rejected.
74	The GC/MS Instrument Performance Check Solution (IPCS) failed acceptance criteria or was not performed. The associated sample results are rejected.
74A	The results are qualified due to IPCS time-of-analysis excursions.
75	Three or more analytes in the initial calibration or continuing calibration failed to meet acceptance criteria. The associated sample results are rejected.
76	The results in the fraction are rejected because the response factor in the initial and/or continuing calibration is less than 0.01 or does not meet the project requirement.
77	The results in the fraction are rejected because the %RSD and/or %D is greater than 40% (or in the case of %D, less than - 40%).
78	The positive result is qualified because the RRF of the compound (with no %RSD or %D) is less than 0.01 or does not meet the project requirement.
79	The non-detect result is rejected because the RRF of the compound (with no %RSD or %D) is less than 0.01.
80	Five or more analytes in the initial calibration or continuing calibration failed to meet %RSD or %D and/or RRF acceptance criteria. The associated sample results are rejected.
80A	Results are rejected since the continuing calibration was not performed properly.
81	Sample results for the fraction are rejected because the % recovery of two or more SMCs (or surrogates) failed to meet criteria.
81A	Results are rejected due to severe surrogate analysis excursions.
81B	Results are qualified due to surrogate analysis excursion.
82	Sample results for the fraction are rejected because the %recovery of one or more SMCs (or surrogates) in the associated method blank failed to meet criteria.
83	Sample results for the fraction are rejected because the retention time of one or more internal standards deviated by more than +/-30 seconds from the retention time of the corresponding internal standard in the associated calibration standard.
84	Two or more internal standard areas in the sample did not meet the QC criteria with recoveries <u>of less than 25%</u> . The detected results and non-detected results are rejected (R).
84A	Results are qualified due to sulfur cleanup issue.
84B	Results are qualified due to internal standard failure.
85	Sample results for the fraction are rejected because sulfur was present in the sample and sulfur cleanup was not performed or performed properly.
86	Results are rejected due to failure to submit manual integration technique.
87	Results are rejected or qualified due to zero matrix spike/ matrix spike duplicate recoveries.
88	Results are qualified due to laboratory control sample excursions.
88A	Results are rejected due to laboratory control sample recoveries of less than ten percent.
89	Detected organic results are qualified due to zero matrix spike/matrix spike duplicate recoveries.
89A	Organic results are qualified due to matrix spike/matrix spike duplicate precision excursions.
90	Results are qualified due to field duplicate excursions. (UJ, J)
91	Results are qualified due to calibration excursions.
92	Results are rejected due to significant canister pressure differences.
93	Results are rejected since SIM was utilized.
94	Results are rejected since a separate MDL study was not performed for each instrument.
95	Results are qualified due to analysis excursions.
96	Results are qualified due to a sample collection excursion.
96A	Results are rejected due to a sample collection excursion.
97	Results are qualified due to sample preparation excursion.
98	The reported hexavalent chromium result was qualified because the post verification spike was greater than 115%.
99	The reported hexavalent chromium result was qualified because the post verification spike was less than 85%
100	The non-detected hexavalent chromium result was qualified (UJ) because the post verification spike was less than 85%. The possibility

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	of a false negative exists.
101	The reported hexavalent chromium result was qualified because the pre-digestion spike recovery was less than 75%.
102	The reported hexavalent chromium result was qualified because the pre-digestion spike recovery was greater than 125%.
103	The non-detected hexavalent chromium result was qualified because the pre-digestion spike recovery was less than 75%. The possibility of a false negative exists.
104	Results are qualified due to sample preservation excursion.
* Indicates that NJDEP data validation guidelines do not address this situation; therefore, validation qualifiers are not applied to data.	
Source O'Brien & Gere	

Table 4. Laboratory QA/QC analyses definitions.

QA/QC Term	Definition
Quantitation limit	The level above which numerical results may be obtained with a specified degree of confidence; the minimum concentration of an analyte in a specific matrix that can be identified and quantified above the method detection limit and within specified limits of precision and bias during routine analytical operating conditions.
Method detection limit	The minimum concentration of an analyte that undergoes preparation similar to the environmental samples and can be reported with a stated level of confidence that the analyte concentration is greater than zero.
Instrument detection limit	The lowest concentration of a metal target analyte that, when directly inputted and processed on a specific analytical instrument, produces a signal/response that is statistically distinct from the signal/response arising from equipment "noise" alone.
Gas chromatography/mass spectrometry (GC/MS) instrument performance check	Performed to verify mass resolution, identification, and to some degree, instrument sensitivity. These criteria are not sample specific; conformance is determined using standard materials.
Calibration	Compliance requirements for satisfactory instrument calibration are established to verify that the instrument is capable of producing acceptable quantitative data. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of analysis and calibration verifications document satisfactory maintenance and adjustment of the instrument on a day-to-day basis.
Relative Response Factor	A measure of the relative mass spectral response of an analyte compared to its internal standard. Relative Response Factors are determined by analysis of standards and are used in the calculation of concentrations of analytes in samples.
Relative standard deviation	The standard deviation divided by the mean; a unit-free measure of variability.
Correlation coefficient	A measure of the strength of the relationship between two variables.
Relative Percent Difference	Used to compare two values; the relative percent difference is based on the mean of the two values, and is reported as an absolute value, i.e., always expressed as a positive number or zero.
Percent Difference	Used to compare two values; the percent difference indicates both the direction and the magnitude of the comparison, i.e., the percent difference may be either negative, positive, or zero.
Percent Recovery	The act of determining whether or not the methodology measures all of the target analytes contained in a sample.
Calibration blank	Consists of acids and reagent water used to prepare metal samples for analysis. This type of blank is analyzed to evaluate whether contamination is occurring during the preparation and analysis of the sample.
Method blank	A water or soil blank that undergoes the preparation procedures applied to a sample (i.e., extraction, digestion, clean-up). These samples are analyzed to examine whether sample preparation, clean-up, and analysis techniques result in sample contamination.
Field/equipment	Collected and submitted for laboratory analysis, where appropriate. Field/equipment blanks are handled in the same manner as environmental samples. Equipment/field blanks are analyzed to assess contamination introduced during field sampling procedures.
Trip blank	Consist of samples of analyte-free water that have undergone shipment from the sampling site to the laboratory in coolers with the environmental samples submitted for volatile organic compound (VOC) analysis. Trip blanks will be analyzed for VOCs to determine if contamination has taken place during sample handling and/or shipment. Trip blanks will be utilized at a frequency of one each per cooler sent to the laboratory for VOC analysis.
Internal standards performance	Compounds not found in environmental samples which are spiked into samples and quality control samples at the time of sample preparation for organic analyses. Internal standards must meet retention time and recovery criteria specified in the analytical method. Internal standards are used as the basis for quantitation of the target analytes.
Surrogate recovery	Compounds similar in nature to the target analytes but not expected to be detected in the environmental media which are spiked into environmental samples, blanks, and quality control samples prior to sample preparation for organic analyses. Surrogates are used to evaluate analytical efficiency by measuring recovery.

Table 4. Laboratory QA/QC analyses definitions.

Laboratory control sample Matrix spike blank analyses	Standard solutions that consist of known concentrations of the target analytes spiked into laboratory analyte-free water or sand. They are prepared or purchased from a certified manufacturer from a source independent from the calibration standards to provide an independent verification of the calibration procedure. They are prepared and analyzed following the same procedures employed for environmental sample analysis to assess method accuracy independently of sample matrix effects.
Laboratory duplicate	Two or more representative portions taken from one homogeneous sample by the analyst and analyzed in the same laboratory.
Matrix	The material of which the sample is composed or the substrate containing the analyte of interest, such as drinking water, waste water, air, soil/sediment, biological material.
Matrix Spike (MS)	An aliquot of a matrix (water or soil) fortified (spiked) with known quantities of specific target analytes and subjected to the entire analytical procedure in order to indicate the appropriateness of the method for the matrix by measuring recovery.
Matrix spike duplicate (MSD)	A second aliquot of the same matrix as the matrix spike that is spiked in order to determine the precision of the method.
Retention time	The time a target analyte is retained on a GC column before elution. The identification of a target analyte is dependent on a target compound's retention time falling within the specified retention time window established for that compound.
Relative retention time	The ratio of the retention time of a compound to that of a standard.
Source O'Brien & Gere	